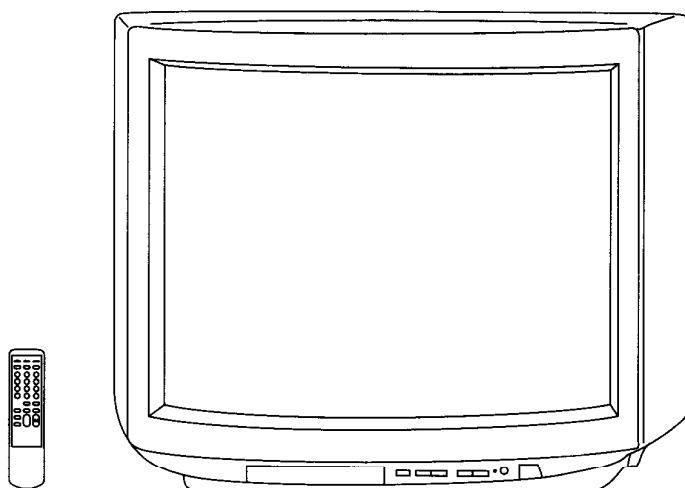


SERVICE MANUAL

BG-1L CHASSIS

<u>MODEL</u>	<u>COMMANDER DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER DEST.</u>	<u>CHASSIS NO.</u>
<i>KV-J29MN1</i>	<i>RM-873 Thailand</i>	<i>SCC-K76F-A</i>			



TRINITRON® COLOR TV
SONY®

SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo system	NICAM Stereo B/G, I; A2 Stereo (German) B/G	
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 / CATV: Z1 to Z39, S01 to S03, S1 to S41	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
Antenna	75-ohm external antenna terminal for VHF/UHF	
Audio output (speaker)	6W × 2	
Number of terminal		
Video	Input: 3 Output: 1	Phono jacks; 1 V _{P-P} , 75 ohms
Audio	Input: 3 Output: 1	Phono jacks; 500 mV _{rms}
S-Video	Input: 1	Y : 1 V _{p-p} , 75 ohms, unbalanced, sync negative C : 0.286 V _{p-p} , 75 ohms
Headphone	Output: 1	Minijack
Picture tube	29 inch (Super Trinitron Plus)	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	780 × 577 × 542	
Mass (kg)	43	
Accessories (optional)	TV stand (SU-E29G)	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

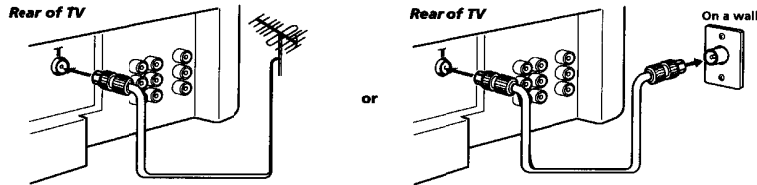
COMPONENTS IDENTIFIED BY SHADING AND MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Getting Started

Connections

Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable.
Plug the connector into the "I" (antenna) socket at the rear of the TV.



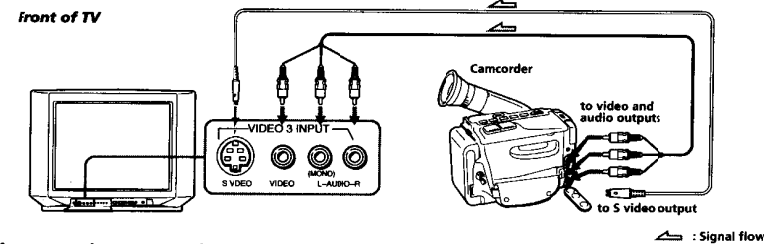
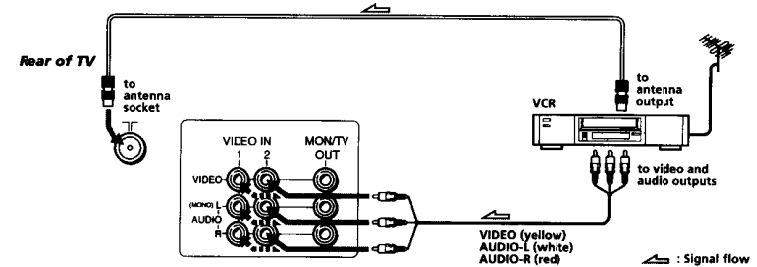
SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in this manual.

Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, video game, or stereo system.

Connecting video equipment using video input jacks



When connecting a monaural VCR

Connect the yellow plug to VIDEO and the black plug to AUDIO-L (MONO).

When connecting a VCR to the "I" (antenna) terminal

Preset the signal output from the VCR to the program position 0.

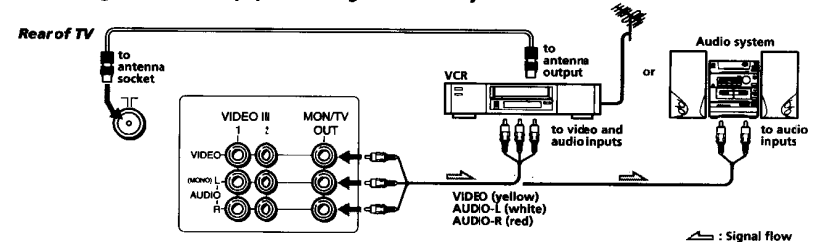
If both S Video and video signals are input simultaneously

The S Video input signal is selected. To view a video input signal, disconnect the S Video connection.

Note on the video input

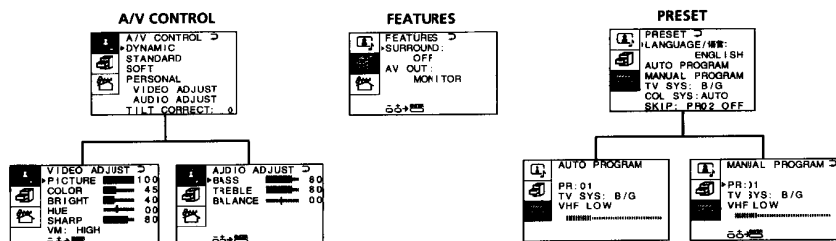
When no signal is input, the screen becomes blue.

Connecting audio/video equipment using MON/TV OUT jacks



Introducing the menus

You can preset TV channels, adjust the picture and sound qualities, and select some settings using the on-screen menus. You can use the buttons on both the remote commander and the TV to operate the menus.



Getting back to the previous menu (except for AUTO PROGRAM)

Press + or - to move the cursor (►) to the first line (□) of each menu, and press ENTER.

Cancelling the menu screen

Press MENU.

Notes (except for AUTO PROGRAM)

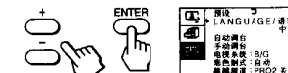
- When a menu is selected after pressing ENTER, the color of both the menu and the menu symbol change and the cursor (►) appears beside the first item of the menu.
- When an item on the menu is selected after pressing ENTER, the color of the item changes.
- You can refer to the guide (GUIDE) at the bottom of the menus (except for the A/V CONTROL and PRESET menus) for the basic operations of the menu.
- If more than approximately 60 seconds elapse after you press a button, the menu screen disappears automatically.

Changing the menu language

If you prefer Chinese to English, you can change the menu language. You can use buttons on the remote commander or the TV.

4 Make sure the cursor (►) appears beside LANGUAGE/语言, and press ENTER.

5 Press + or - to select 中文, and press ENTER.



All of the menus change to Chinese.

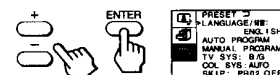
6 Press MENU to return to the normal screen.



1 Press POWER to turn on the TV.

2 Press MENU.

3 Press + or - to move the cursor (►) to the PRESET menu (PRE), and press ENTER.

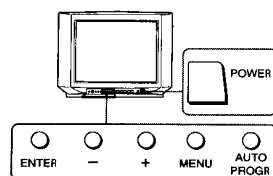


Presetting channels

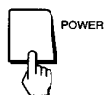
You can preset TV channels easily by storing all the receivable channels automatically. You can also preset channels manually or disable program positions (see page 11).

Presetting channels automatically

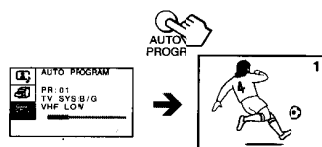
You can preset up to 100 TV channels in numerical sequence from the program position 1. You can preset channels automatically using the button on the TV or the menu.



1 Press POWER to turn on the TV.



2 Press AUTO PROGR.



The TV starts scanning and presetting channels automatically. When all of the receivable channels are stored, the first preset TV program appears on the screen.

To preset channels automatically using the menu

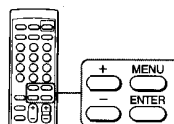
1 Press MENU.

2 Press + or - to move the cursor (►) to the PRESET menu (PRE), and press ENTER.

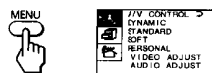
3 Press + or - to move the cursor (►) to AUTO PROGRAM, and press ENTER.

Presetting channels manually

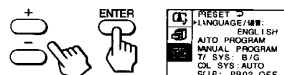
To change the program position for a channel or to receive a channel with a weak signal which you cannot receive by automatic presetting, preset the channel manually.



1 Press MENU.



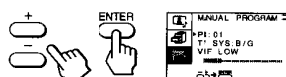
2 Press + or - to move the cursor (►) to the PRESET menu (PRE), and press ENTER.



3 Select your local TV system.

- (1) Press + or - to move the cursor (►) to TV SYS, and press ENTER.
- (2) Press + or - until your local TV system appears on the menu, and press ENTER.

4 Press + or - to move the cursor (►) to MANUAL PROGRAM, and press ENTER.



5 Select the program position to which you want to preset a channel

- (1) Make sure the cursor (►) appears beside PR, and press ENTER.
- (2) Press + or - until the program position you want appears on the menu, and press ENTER.

6 Select the desired channel.

- (1) Press + or - to move the cursor (►) to VHF LOW, and press ENTER.
- (2) Press + or - until the desired channel picture appears on the TV screen, and press ENTER.

7 Press MENU to return to the normal screen.

If the TV system is not properly selected

The picture color may be poor and/or the sound may be noisy. In this case, select the appropriate TV system.

- 1 Press PROGR +/- or the number buttons to select the program position.
- 2 Display the PRESET menu.
- 3 Press + or - to move the cursor (►) to TV SYS, and press ENTER.
- 4 Press + or - until the appropriate TV system appears, and press ENTER.

Notes

- The TV system setting is memorized for each program position.
- If you do not know your local TV system, consult your nearest Sony dealer or authorized service center.

Disabling program positions

By disabling unused or unwanted program positions, you can skip these positions when you press PROGR +/-.

1 Press MENU.

2 Press + or - to move the cursor (►) to the PRESET menu (PRE), and press ENTER.

3 Press + or - to move the cursor (►) to SKIP, and press ENTER.

4 Press + or - until the unused or unwanted program position appears on the menu, and press ENTER.

5 Press + or - to select ON, and press ENTER.

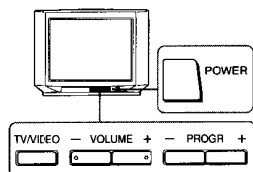
6 To disable other program positions, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

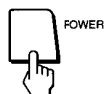
To cancel the skip setting

- 1 Display the PRESET menu.
- 2 Press + or - to move the cursor (►) to SKIP, and press ENTER.
- 3 Press + or - until the program position you want to cancel the skip setting appears, and press ENTER.
- 4 Press + or - to select OFF, and press ENTER.

Watching the TV



1 Press POWER to turn on the TV.

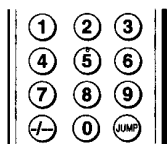


When the TV is turned on in the standby mode after pressing POWER on the TV, press POWER on the remote commander.

2 Select the TV program you want to watch.

To select a program position directly

Press the number button.

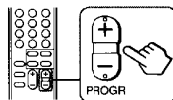


To select a two-digit program position, press “-” before the number buttons.
For example: to select program position 25, press “-” then “2” and “5.”

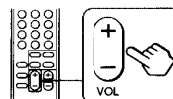


To scan through program positions

Press PROGR +/- on the remote commander or the TV until the program position you want appears.



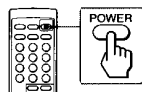
3 Press VOL +/- on the remote commander or VOLUME +/- on the TV to adjust the volume.



Turning off the TV

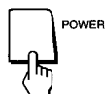
To turn off the TV temporarily

Press POWER on the remote commander. The standby indicator lights up.



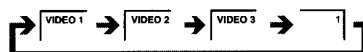
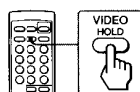
To turn off the TV completely

Press POWER on the TV.



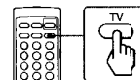
Watching the video input

Press VIDEO/HOLD on the remote commander or TV/VIDEO on the TV.



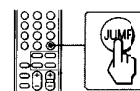
To watch TV

Press TV on the remote commander or TV/VIDEO on the TV.



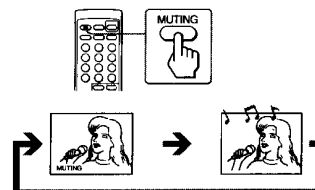
Switching back quickly to the previous channel

Press JUMP.



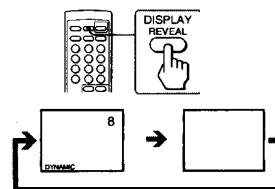
Muting the sound

Press MUTING.



Displaying the on-screen information

Press DISPLAY/REVEAL.



Note

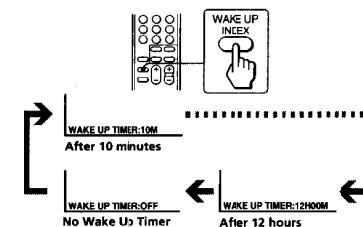
- The on-screen display shows the program position or the video mode and the picture and sound information. The on-screen display for the picture and sound information disappears after being displayed for approximately three seconds.

Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

1 Press WAKE UP/INDEX repeatedly to set the timer.

The on-screen display appears.



2 If you want a particular TV program or video mode to be displayed using the Wake Up Timer, select the TV program or video mode.

3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in the standby mode.

The WAKE UP indicator lights up in amber color.

To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until “WAKE UP TIMER: OFF” appears, or turn off the main power of the TV.

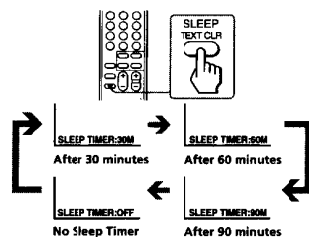
Notes

- The Wake Up Timer starts immediately after the on-screen display disappears.
- The last TV program position or video mode just before the TV turns into the standby mode will appear when the TV is turned on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into the standby mode. If you want to continue watching the TV, press any button or control on the TV or remote commander.

Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

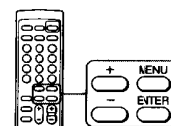
Press **SLEEP**.



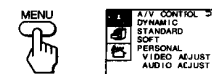
To cancel the Sleep Timer, press **SLEEP** repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off.

Adjusting the picture and sound

Selecting the picture and sound modes

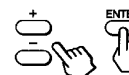


1 Press **MENU**.



2 Make sure the cursor (►) appears in the **A/V CONTROL** menu (I), and press **ENTER**.

3 Press **+** or **-** to move the cursor (►) to **DYNAMIC**, **STANDARD**, **SOFT**, or **PERSONAL**, and press **ENTER**.



Select	To
DYNAMIC	Receive high contrast picture with powerful sound.
STANDARD	Receive normal contrast picture with medium listening sound.
SOFT	Receive mild picture with soft sound.
PERSONAL	Receive the last picture and sound settings that are adjusted using VIDEO ADJUST and AUDIO ADJUST.

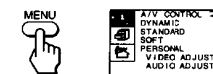
4 Press **MENU** to return to the normal screen.



Adjusting the picture settings (VIDEO ADJUST)

You can adjust the picture settings to suit your taste with the VIDEO ADJUST option. The adjusted settings are stored in the PERSONAL option.

1 Press **MENU**.



2 Make sure the cursor (►) appears in the **A/V CONTROL** menu (I), and press **ENTER**.

3 Press **+** or **-** to move the cursor (►) to **VIDEO ADJUST**, and press **ENTER**.



4 Press **+** or **-** to move the cursor (►) to the item you want to adjust, and press **ENTER**.

5 Press **+** or **-** to adjust the selected item, and press **ENTER**.

For details on each item, see "Description of adjustable items" below.

6 To adjust other items, repeat steps 4 and 5.

7 Press **MENU** to return to the normal screen.

Description of adjustable items

Item	Press -	Press +
PICTURE	Decrease picture contrast.	Increase picture contrast.
COLOR	Decrease color intensity.	Increase color intensity.
BRIGHT	Darken the picture.	Brighten the picture.
HUE	Make picture tones become reddish.	Make picture tones become greenish.
SHARP	Soften the picture.	Sharpen the picture.
VM	Decrease emphasis on picture edges.	Increase emphasis on picture edges.

Notes

- You can adjust HUE for the NTSC color system only.

If the picture is slightly snowy

You may try to improve the picture by changing the VM setting as described below:

- 1 Display the VIDEO ADJUST menu.
- 2 Press + or - to move the cursor (►) to VM, and press ENTER.
- 3 Press + or - to select LOW, and press ENTER.

If the picture color is abnormal when receiving programs through the T (antenna) terminal

Change the color system or the TV system from the PRESET menu as described below until the color becomes normal.

- 1 Display the PRESET menu.
- 2 Press + or - to move the cursor (►) to COL SYS or TV SYS, and press ENTER.
- 3 Press + or - to change the color system or the TV system until the color becomes normal, and press ENTER.

Note

- Normally set the color system (COL SYS) to AUTO.

Adjusting the sound settings (AUDIO ADJUST)

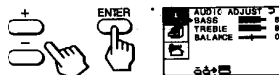
You can adjust the sound settings to suit your taste with the AUDIO ADJUST option. The adjusted settings are stored in the PERSONAL option.

1 Press MENU.



2 Make sure the cursor (►) appears in the A/V CONTROL menu (AV), and press ENTER.

3 Press + or - to move the cursor (►) to AUDIO ADJUST, and press ENTER.



4 Press + or - to move the cursor (►) to the item you want to adjust, and press ENTER.

5 Press + or - to adjust the selected item, and press ENTER.

For details on each item, see "Description of adjustable items" below.

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

Description of adjustable items

Item	Press -	Press +
BASS	Decrease the bass sound.	Increase the bass sound.
TREBLE	Decrease the treble sound.	Increase the treble sound.
BALANCE	Increase the left speaker's volume.	Increase the right speaker's volume.

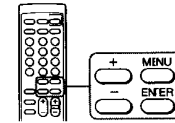
If the sound is distorted or noisy when receiving programs through the T (antenna) terminal

Change the TV system from the PRESET menu as described below until the sound becomes normal.

- 1 Display the PRESET menu.
- 2 Press + or - to move the cursor (►) to TV SYS, and press ENTER.
- 3 Press + or - to change the TV system until the sound becomes normal, and press ENTER.

Listening to the surround sound (SURROUND)

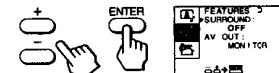
The SURROUND feature enables you to enjoy a surround sound effect that is like being in a large hall or live concert when receiving stereo signals.



1 Press MENU.

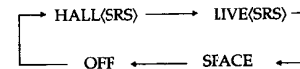


2 Press + or - to move the cursor (►) to the FEATURES menu (FEATURES), and press ENTER.



3 Make sure the cursor (►) appears beside SURROUND, and press ENTER.

4 Press + or - to select HALL(SRS), LIVE(SRS), or SPACE, and press ENTER.



For details on each item, see "Description of adjustable items" below.

5 Press MENU to return to the normal screen.

Description of adjustable items

Select	To
HALL(SRS)	Listen to a sound that spreads out over a large area.
LIVE(SRS)	Listen to the sound that gives the feeling of being at a live concert.
SPACE	Listen to a monaural sound that gives a stereo-like effect.
OFF	Turn off the surround sound.

Note

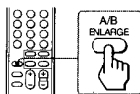
- The (SRS) (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. The word "SRS" and the SRS symbol (SRS) are registered trademarks of SRS Labs, Inc.

Selecting a stereo or bilingual program

You can enjoy stereo sound or bilingual programs of NICAM and A2 (German) stereo systems.

Press A/B/ENLARGE repeatedly until you receive the sound you want.

The on-screen display changes corresponding to the selected sound, and the STANDBY/STEREO/WAKE UP indicator also lights up.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	
NICAM bilingual	
NICAM monaural	

When receiving an A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	
A2 (German) bilingual	

Receiving area for NICAM and A2 (German) programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO." The sound becomes monaural, however, the noise will be reduced.

Customizing the TV

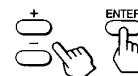
Using the AV OUT (advanced rec-out) terminal

You can select the output signal from the MON/TV OUT jacks at the rear of the TV.

1 Press MENU.



2 Press + or - to move the cursor (P) to the FEATURES menu (F), and press ENTER.



3 Press + or - to move the cursor (P) to AV OUT, and press ENTER.

4 Press + or - to select the output signal, and press ENTER.

Select	To
TV	Output the signal of the TV broadcast.
MONITOR	Output the signal of the picture you are watching as a main picture.

Note

- Don't change the channel while recording with a VCR through the MON/TV OUT jacks. If you change the channel, it also changes the channel you are recording.

Adjusting the picture tilt

You can adjust the picture tilt if it is not aligned to the TV screen. This may happen due to the direction of the earth's magnetic fields in relation to the TV position.

1 Press MENU.



2 Make sure the cursor (P) appears in the A/V CONTROL menu (F), and press ENTER.

3 Press + or - to move the cursor (P) to TILT CORRECT, and press ENTER.

4 Press + or - to select the most suitable value to adjust the picture tilt, and press ENTER.

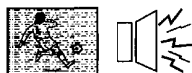
TILT CORRECT:
 -5 ← -4 ← -3 ← -2 ← -1 ← 0 → -1 → +2 → +3 → +4 → +5
 Press - Press +

Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.

If the problem persists after trying the methods below, contact your nearest Sony dealer or authorized service center.

Snowy picture Noisy sound



- Check the antenna.
- Check the antenna connection on the TV and on the wall.
- Check the TV system (TV SYS) setting.

Dotted lines or stripes



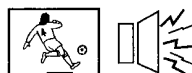
- This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.). Adjust the antenna for minimum interference.

Double images or "ghosts"



- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

Good picture Noisy sound



- Check the TV system (TV SYS) setting.

No picture No sound



- Press POWER.
- Press POWER to turn off the TV for about five seconds and then turn it on again.
- Check the power cord connection.
- Check the antenna connection.
- Check the VCR connections.

Good picture No sound



- Press VOL +.
- Press MUTING.
- Press A/B/ENLARGE

No color



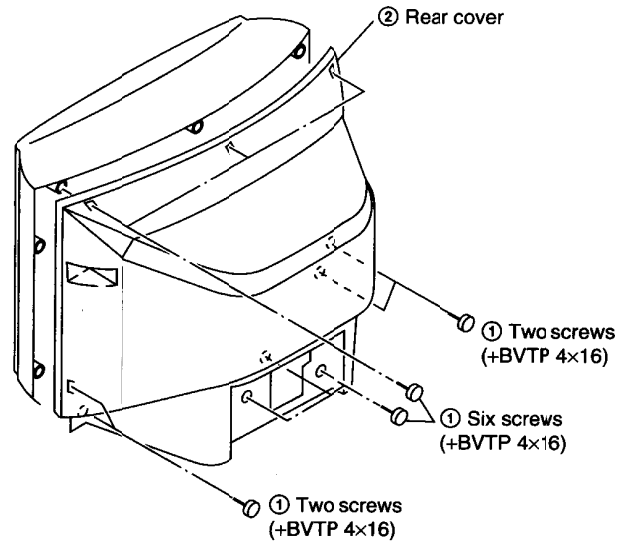
- Adjust the COLOR level in the VIDEO ADJUST menu of the PERSONAL option.
- Check the color system (COL SYS) setting.

TV cabinet creaks

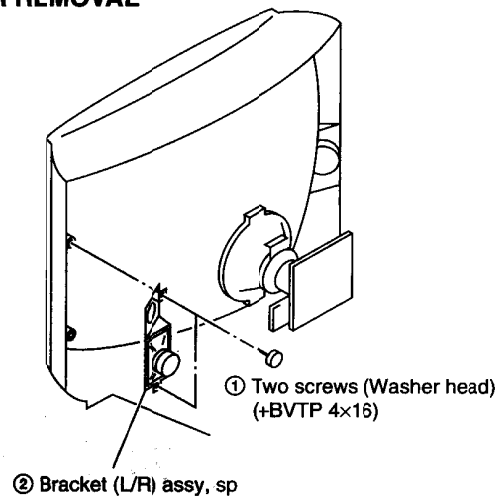
- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

SECTION 2 DISASSEMBLY

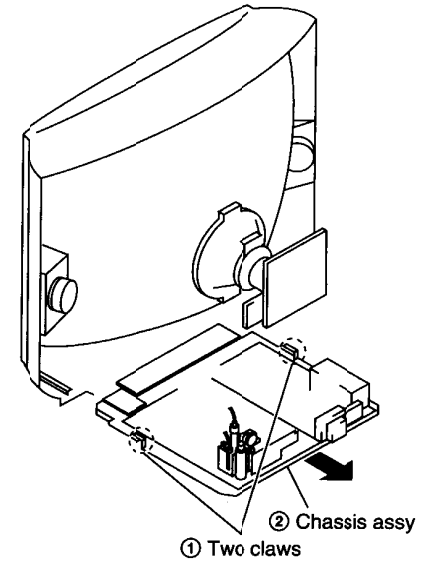
2-1. REAR COVER REMOVAL



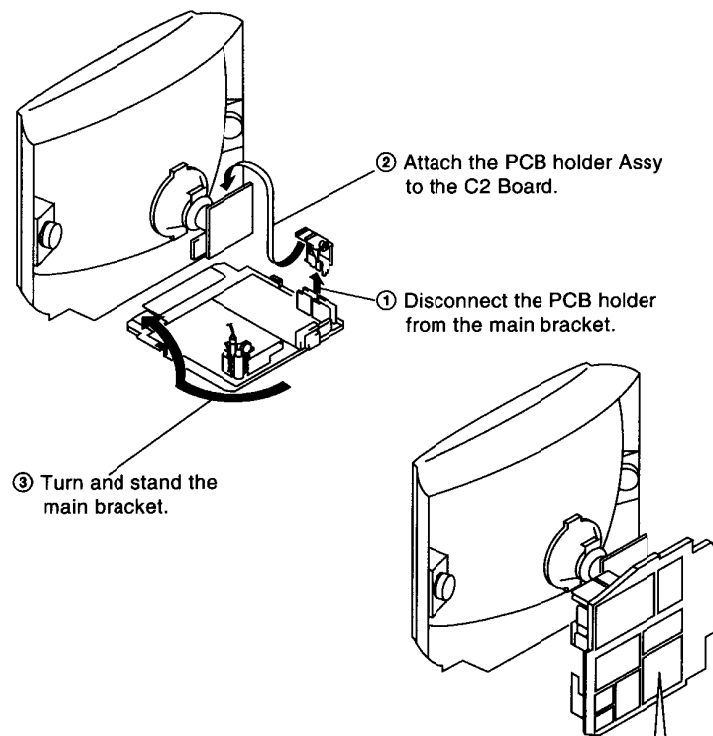
2-2. SPEAKER REMOVAL



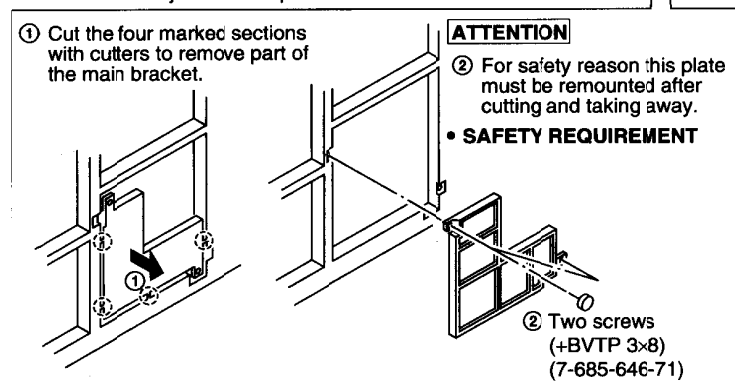
2-3. CHASSIS ASSY REMOVAL



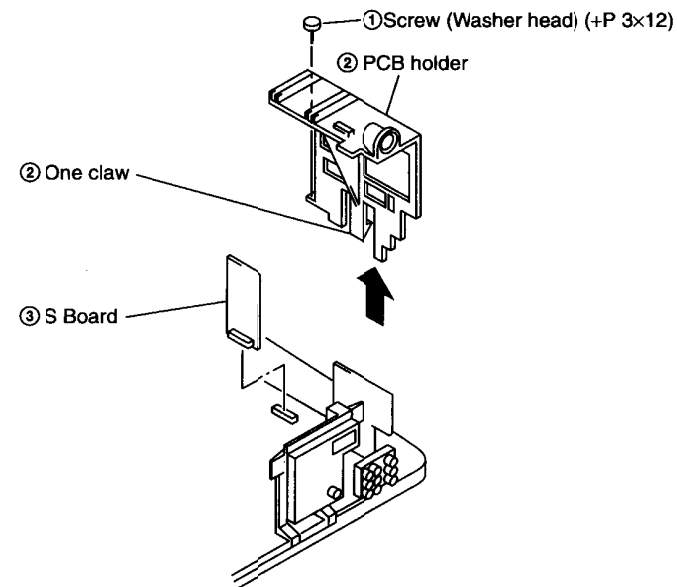
2-4. SERVICE POSITION



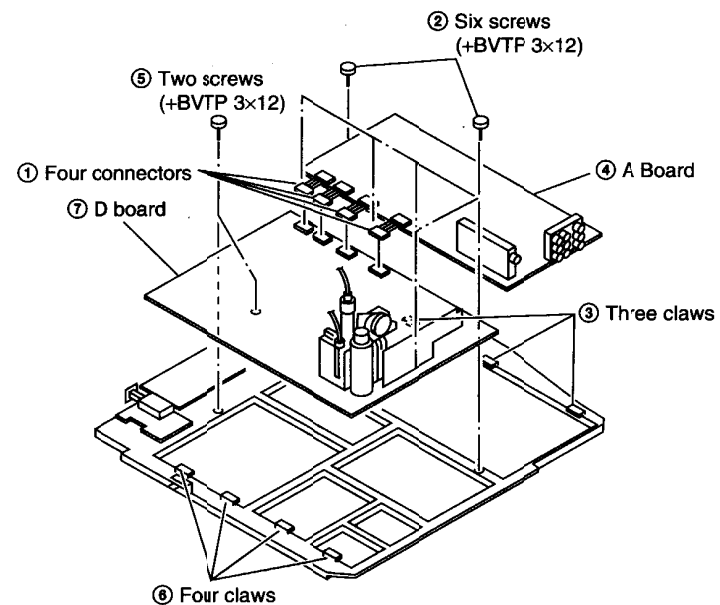
• When measuring the power supply voltage, just remove part of the main bracket as shown below.



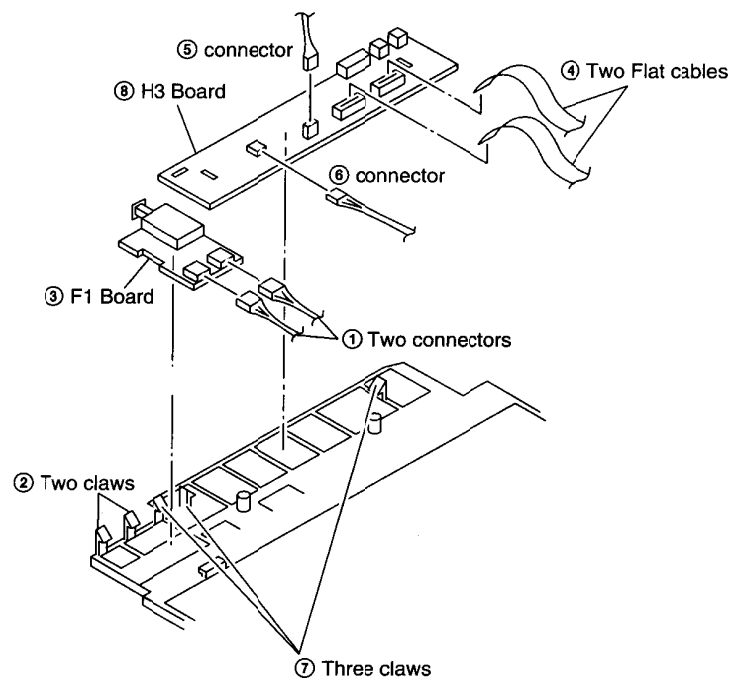
2-5. S BOARD REMOVAL



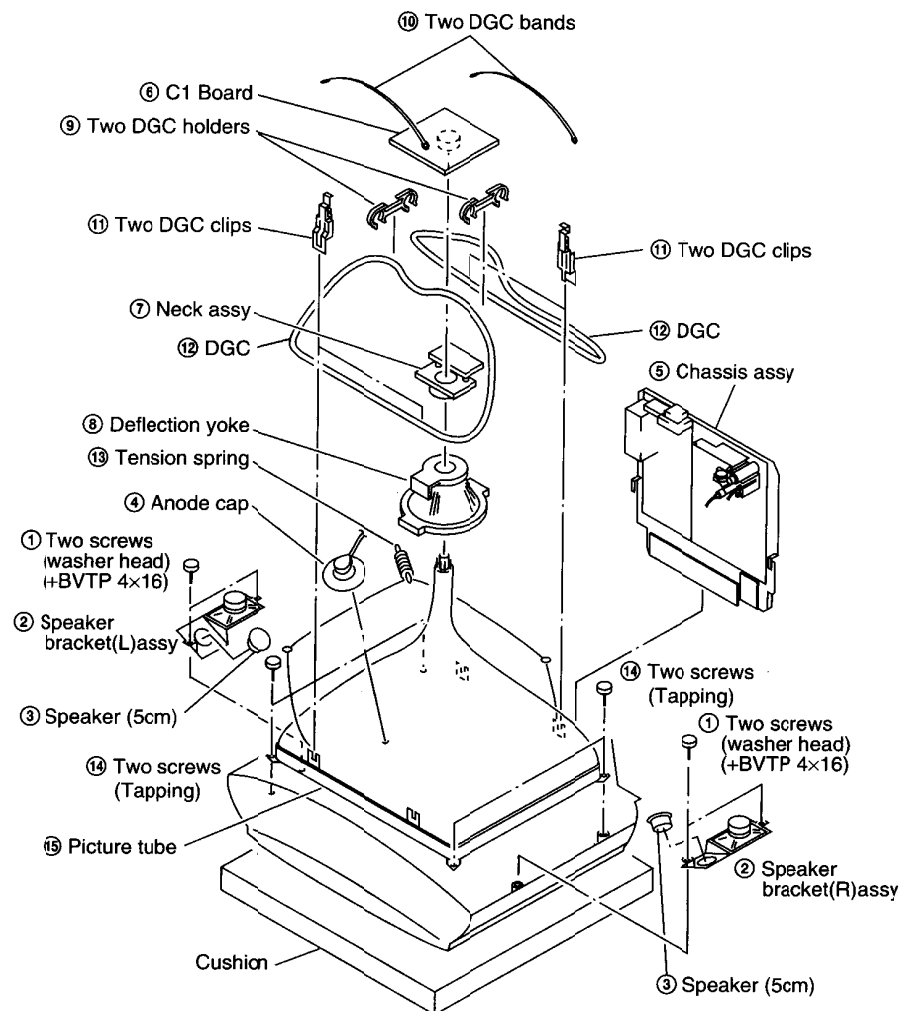
2-6. A AND D BOARDS REMOVAL



2-7. F1 AND H3 BOARDS REMOVAL



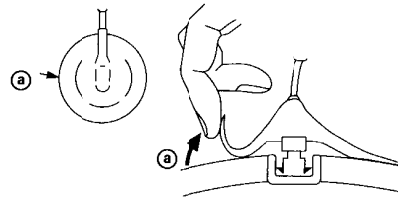
2-8. PICTURE TUBE REMOVAL



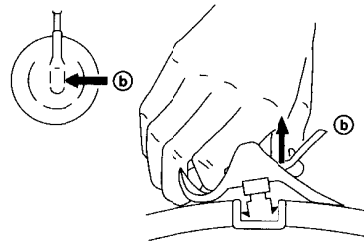
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

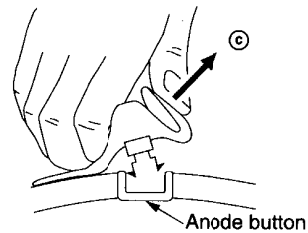
• REMOVING PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ①.



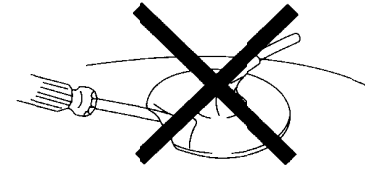
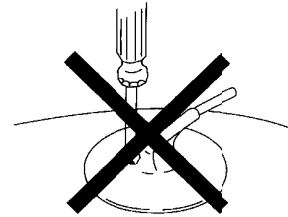
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ③.

• HOW TO HANDLE AN ANODE-CAP

- ① Do not damage the surface of anode-caps with sharp shaped objects.
- ② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SELF DIAGNOSIS FUNCTION

When turning on the TV, a self diagnosis function is executed.

If no acknowledgement is returned from a device which is turned "ON", the device has a problem.

In this case, one of the LED's responding to the problem device will flicker a defined number of times.

The flickering frequency responding to each failed device is shown below.

Board name	A Board	A Board	A Board	A Board
Ref. No.	IC003	IC1201	IC104	IC206
Device	NONVOLATILE MEMORY	AV SWITCH (CXA1855S)	MAIN Y/C (CXA-2050S)	SURROUND PROCESSOR (TDA8424)
Flickering Frequency	1	2	3	6

All the devices are checked one after another from the left of the table.

If an error is found, the responding LED will start flickering.

So, if more than 1 device has failed, only the one on the left side will flicker.

SECTION 4

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control normal

BRIGHTNESS control normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

4-1. BEAM LANDING

1. Position neck ass'y as shown in Fig4-1.
2. Input a white signal with the pattern generator.
 Contrast } normal
 Brightness }
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
 (See Figures 4-2 through 4-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 4-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
 (See Figure 4-5.)

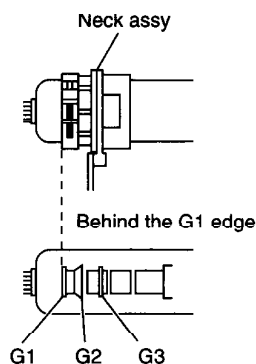


Fig. 4-1

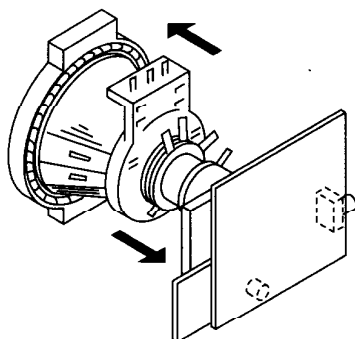


Fig. 4-2

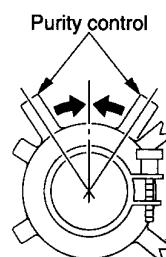


Fig. 4-3

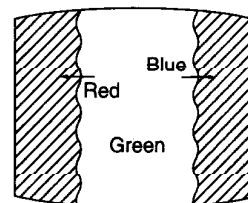


Fig. 4-4

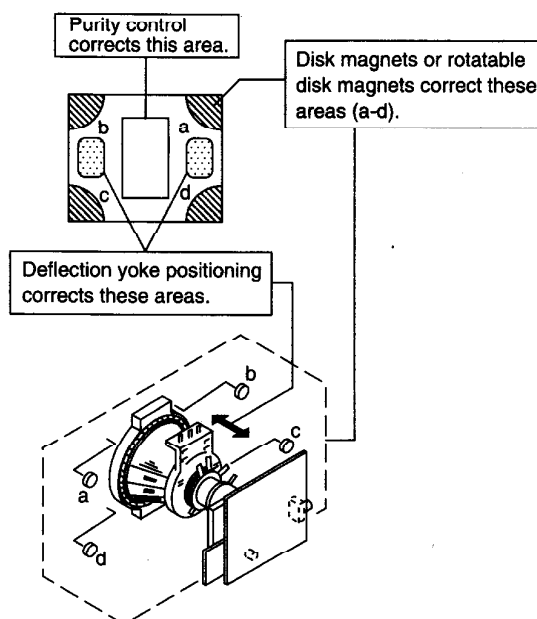


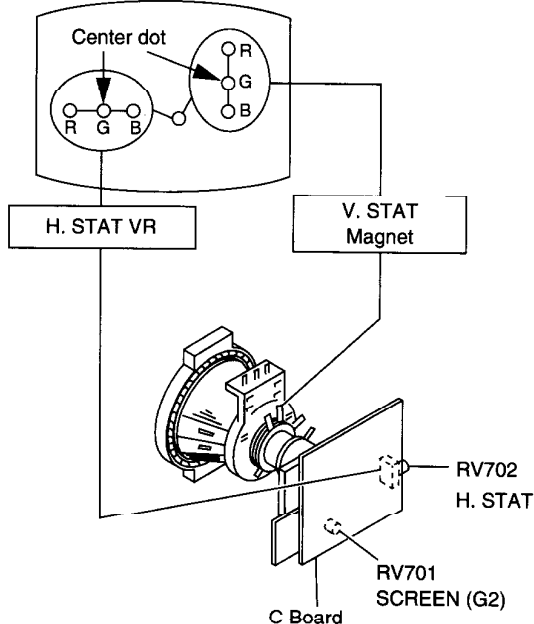
Fig. 4-5

4-2. CONVERGENCE

Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence

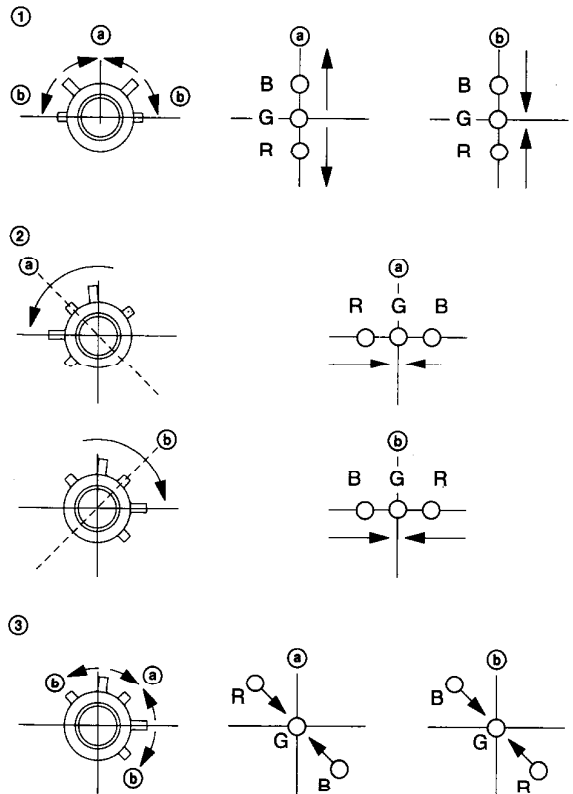


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue points are on top of each other at the center of the screen.
3. If the red, green and blue points cannot come together at the center of the screen, adjust the convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.

(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)

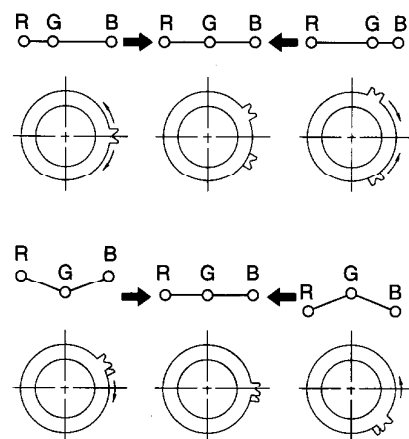
• Operation of V.STAT magnet.

If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green and blue points move as shown below.

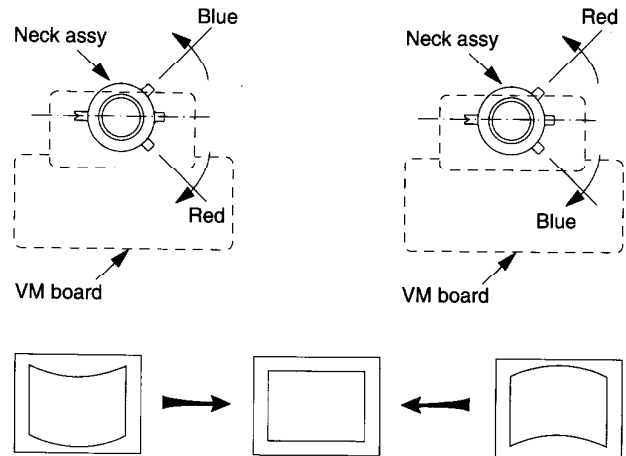


• Operation of BMC (Hexapole) Magnet.

If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



- Y separation axis correction magnet adjustment.
1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .
 2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.



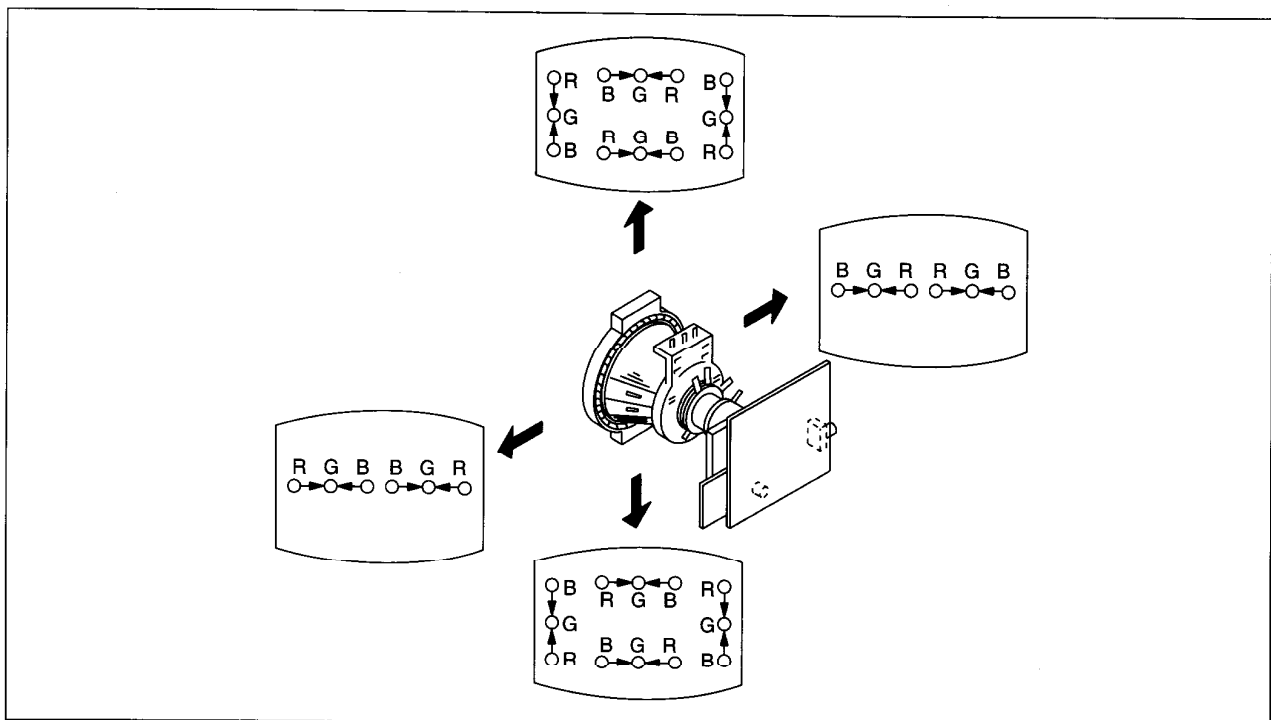
Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

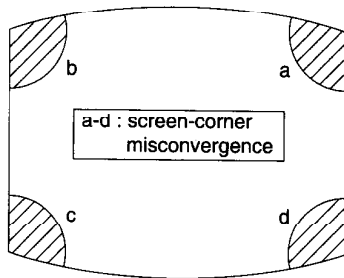
(2) Dynamic Convergence Adjustment

Preparation:

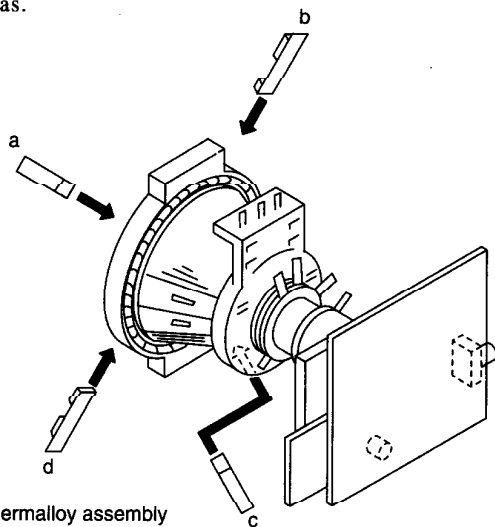
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence
1. Slightly loosen the deflection yoke screws.
 2. Remove the deflection yoke spacer.
 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
 4. Tighten the deflection yoke screws.
 5. Install the deflection yoke spacer.



(3) Screen-corner Convergence

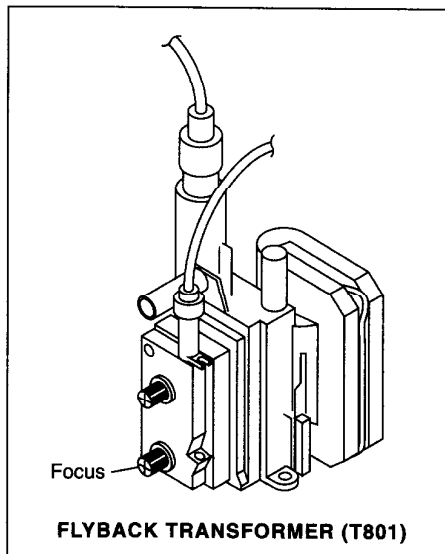


Affix a Permalloy assy corresponding to the misconverged areas.



4-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.



4-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

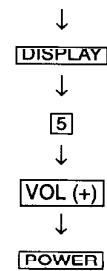
a. SOME ITEMS OF ADJUSTMENT

Item number	Adjustment item	Standard DATA		Note
		50Hz	60HZ	
35	SBR	17	17	SUB-BRIGHTNESS
37	GDR	2C		G. Drive
38	BDR	2C		B. Drive
39	GCF	07		G. Cut-off
3A	BCF	07		B. Cut-off

b. SERVICE MODE

Entering service mode

With the unit on standby



c. METHOD OF CANCELLATION FROM SERVICE MODE

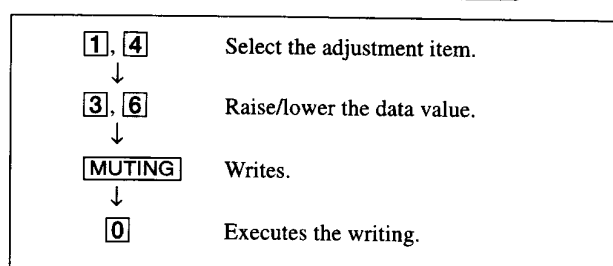
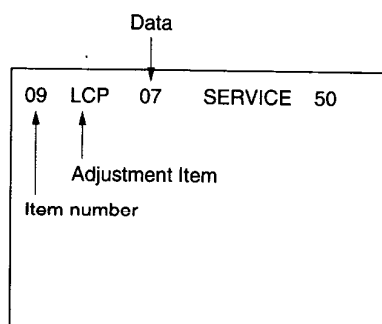
Set the standby condition (Press **POWER** button on the commander), then press **POWER** button again, hereupon it becomes TV mode.

d. METHOD OF WRITE INTO MEMORY

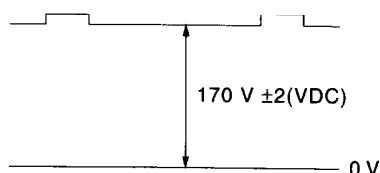
- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustment.
- 3) Press **MUTING** button and it will indicate WRITE on the screen.
- 4) Press **0** button to write into memory.

e. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm adjustments were made.

**1. G2 (SCREEN) ADJUSTMENT (RV701)**

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Set to Service Mode.
- 4) Change item number 8C BLU data from "01" to "00"
(To turn off Blue Back).
- 5) Press [MUTING] and [0] to write the data into the memory.
- 6) Connect R, G and B of the C board cathode to the oscilloscope.
- 7) Adjust G2 (RV701) volume to the value below.



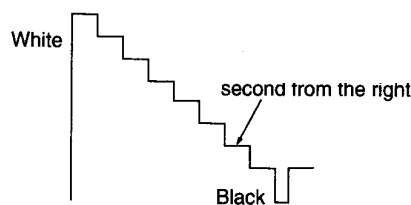
- 8) Re-set item number 8C BLU data from "00" back to "01".
- 9) Press [MUTING] and [0] to write the data into the memory.

2. WHITE BALANCE ADJUSTMENT

- 1) Set to Service Mode.
- 2) Input white raster signal.
- 3) Set the PICTURE to minimum.
- 4) Select 35 SBR with [1] and [4], and then set the level to minimum with [3] and [6].
- 5) Select 39 GCF and 3A BCF with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 6) Set the PICTURE to maximum.
- 7) Select 37 GDR and 38 BDR with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 8) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

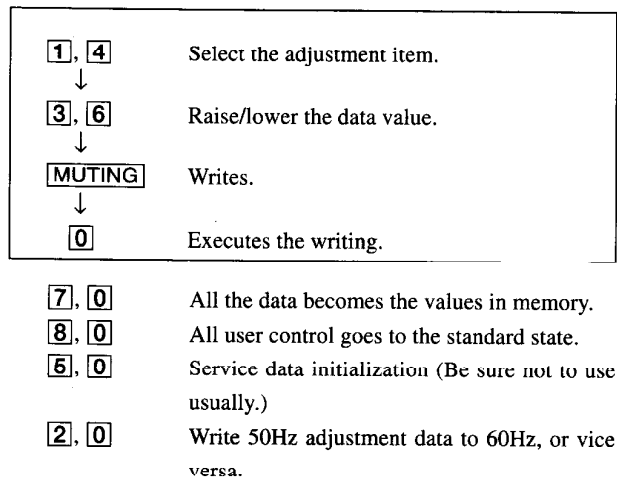
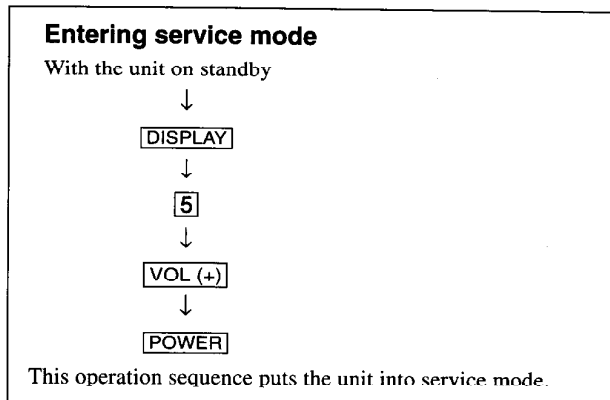
- 1) Set to service mode.
- 2) Input a staircase signal of black to white from the pattern generator.
- 3) BRIGHTNESS 50%.
PICTURE minimum
- 4) Select 55 SBR with [1] and [4], and adjust SBR level with [3] and [6] so that the second stripe from the right is dimly lit.



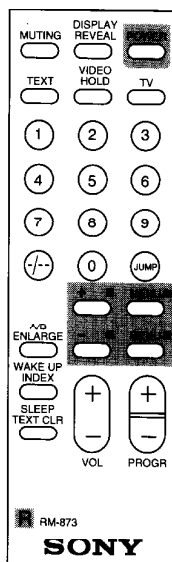
SECTION 5 CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

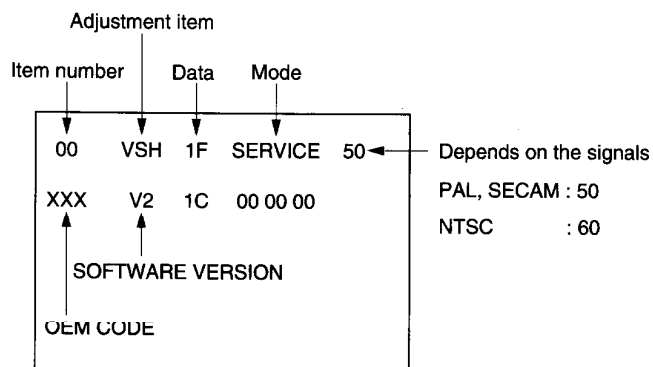
Service adjustments are made with the RM-873 that comes with this unit.



The screen display is :



RM-873

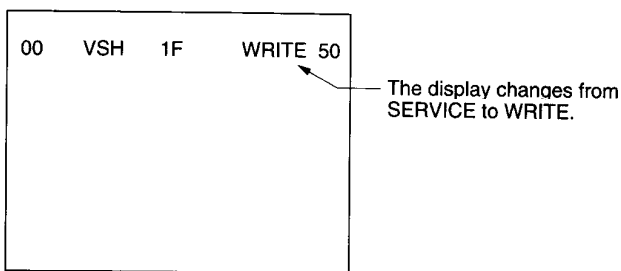
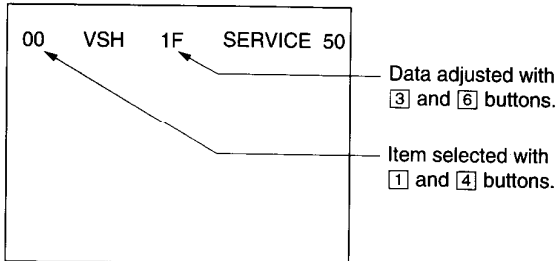


5-2. ADJUSTMENT METHOD

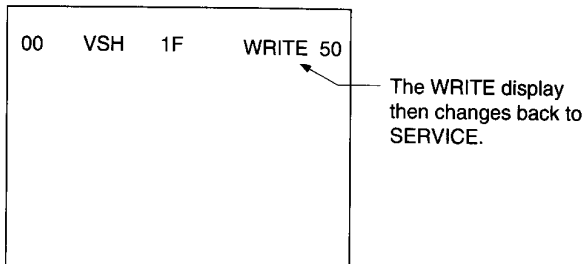
Item Number 00

This explanation uses V-Position as an example.

1. Select 00 VSH with the **[1]** and **[4]** buttons.
2. Raise/lower the data with the **[3]** and **[6]** buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the **[MUTING]** button. (The display changes to WRITE.)
5. Execute the writing with the **[0]** button. (The WRITE display will be changed back to SERVICE.)



Written with **[MUTING]**



Write executed with **[0]**

Use the same method for Items Number 00-96. Use **[1]** and **[4]** to select the adjustment item, use **[3]** and **[6]** to adjust, write with **[MUTING]**, then execute the write with **[0]**.

- Note :**
1. For adjustment items that have different standard data between 50Hz or 60Hz and normal or wide, be sure to use the respective input signal while adjusting.
 2. In **[WRITE]**, the data for all items are written into memory together.

Adjustment Item Table

Item number	Adjustment Item	Data range	Standard data	Note	Device
00	VSH	00-3F	1F	V Position	CXA2050S (Y/C/J)
01	VSZ	00-3F	1F	V Size	
02	HSZ	00-0F	07	H Position	
03	HSZ	00-3F	1F	H Size	
04	SCR	00-0F	07	S Correction	
05	VLN	00-0F	07	V Linearity	
06	PAP	00-3F	1F	Pin Comp	
07	PPH	00-0F	07	Pin Phase	
08	UCP	00-0F	07	Up Corner Pin	
09	LCP	00-0F	07	Low Corner Pin	
0A	BOW	00-0F	07	AFC-Bow	
0B	ANG	00-0F	07	AFC-Angle	
0C	VAP	00-3F	2F	V Aspect	
0D	VSC	00-3F	1F	V Scroll	
0E	ULN	00-0F	00	UP V Linearity	
0F	LLN	00-0F	00	LOW V Linearity	
10	EHH	00-03	00	EHT-H	
11	EHV	00-03	01	EHT-V	
12	HBS	00-01	01	H Blk Wid. ON/OFF	
13	LBK	00-0F	0F	L Blk Width	
14	RBK	00-0F	0F	R Blk Width	
15	JSW	00-01	00	Jump ON/OFF Sw	
16	VBW	00-03	02	V Blk Wid. Con.	
17	AFC	00-03	03	AFC-Mode	
18	FHH	00-01	00	FH-HI	
19	VFO	00-03	00	V-Freq	
1A	VOF	00-01	00	V OFF	
1B	VMD	00-01	00	CD-Mode 2	
1C	CMD	00-01	00	CD-Mode	
1D	ITL	00-03	00	Inter lace	
1E	ZSW	00-01	00	ZOOM SW	
1F	POV	00-03	03	Pre-Over	
20	CT1	00-01	01	C-Trap(NTSC)	
21	CT2	00-01	01	C-Trap(PAL)	
22	CF0	00-0F	07	C-Trap f0 Adj	
23	SF0	00-01	01	Sharpness f0 Adj	
24	TOT	00-01	01	TOT Filter SW	
25	CSW	00-03	00	Color SW	
26	XTL	00-03	00	Xtal	
27	CV1	00-01	01	CV/YC Select(NTSC)	
28	CV2	00-01	01	CV/YC Select(PAL)	
29	VM	00-01	01	VM ON/OFF	
2A	YVM	00-01	00	YSI/VM SW(0:YSI)	
2B	DPC	00-01	01	D-Pic ON/OFF	
2C	DCO	00-01	01	Dynamic Color	
2D	GMM	00-03	01	Gamma	
2E	DTR	00-01	01	DC-Tran	
2F	DL1	00-07	01	Delay Ctrl.(PAL)	
30	DL2	00-07	03	Delay Ctrl.(NTSC)	
31	DL3	00-07	03	Delay Ctrl.(SECAM)	
32	SCN	00-0F	09	Sub-Contrast	
33	SCO	00-0F	0B	Sub-Color	
34	SHU	00-0F	05	Sub-Hue	
35	SBR	00-3F	17	Sub-Bright	
36	SSH	00-07	04	Sub-Sharpness	
37	GDR	00-3F	2C	G-Drive	
38	BDR	00-3F	2C	B-Drive	
39	GCF	00-0F	07	G-Cutoff	

Note: Bold items are fixed data.

Adjustment Item Table

Item number	Adjustment Item	Data range	Standard data	Note	Device
3A	BCF	00-0F	07	B-Cutoff	CXA2050S (Y/C/J)
3B		00-03	01	Ref-Position	
3C		00-01	01	Pic-ON	
3D		00-01	01	R ON	
3E		00-01	01	G ON	
3F		00-01	01	B ON	
40		00-01	00	AKB ON/OFF SW	
41		00-01	00	Ext Sync Select	
42		00-01	00	Aging Mode ON/OFF	
43		00-01	01	ABL Pic/Pic&Brt SW(0:Pic only)	
44		00-01	00	RGB Limit ON/OFF(0:ON)	
45		00-01	01	Picture Booster	TDA9170 (Picture Improve)
46		00-01	01	Black Offset	
47		00-3F	1F	User Var. Gamma	
48		00-3F	1F	Adaptive Gamma	
49		00-3F	0F	Non-linear Amp	
4A		00-02	00	Window Select	
4B		00-0F	07	Window Line Start	
4C		00-0F	07	Window Line Stop	
4D		00-0F	07	Window Field Start	
4E		00-0F	07	Window Field Stop	
4F		00-01	01	V Aperture on/off	CXA1315 (V-AP)
50		00-03	02	V Aperture white	
51		00-03	00	V Aperture black	
52		00-0F	03	V Aperture core	
53		00-3F	0F	Sharpness	CXA1315 (LTI)
54		00-3F	29	VM Limitter	
55		00-3F	17	Coreing	
56		00-3F	15	DSC Offset	
57		00-3F	1F	DSC Gain	
58		00-01	01	Delay Time	
59		00-0F	00	SEL Pin Delay	SDA9189X (PinP)
5A	POH	00-FF	14	H Position(MSB8bit)	
5B	POV	00-FF	27	V Position	
5C		00-1F	00	Pinp Display Mode	
5D		00-0F	00	Write Position	
5E	HDL	00-1F	0B	HSI Delay	
5F		00-01	00	Decimation Filter	
60		00-1F	0B	VSI Delay	
61		00-1F	06	VSP Delay	
62	CON	00-0F	06	Contrast	
63		00-0F	09	Frame Y	
64		00-0F	00	Frame V	
65		00-0F	00	Frame U	
66		00-01	01	Inner Frame	
67		00-03	02	Frame Width V	
68		00-07	07	Frame Width H	
69		00-03	02	PLL Loop Filter	
6A		00-0F	00	Pedestal V	
6B		00-0F	00	Pedestal U	
6C		00-01	00	DAC Stream Control	
6D		00-01	00	DAC Control	
6E		00-01	00	Wipe on/off	
6F		00-03	00	Wipe Speed	

Note:  Bold items are fixed data.

Adjustment Item Table

Item number	Adjustment Item	Data range	Standard data	Note	Device
70	FAW	00-FF	08	NICAM FAW Thresh	MSP3410 (Audio Stereo Decoder)
71	CTM	00-FF	08	NICAM Error Bit(MONO)	
72	CTN	00-FF	50	NICAM Error Bit(NICAM)	
73	WCD	00-FF	0A	W.G.Change Data	
74	WST	00-FF	15	W.G.STEREO Threshold	
75	WTM	00-FF	50	W.G.Timer	
76	WBT	00-FF	EA	W.G.BILINGUAL Threshold	
77	ACG	00-01	01	AGC AUTO/CONST.	
78	CDB	00-3F	28	AGC GAIN CONST.	
79	FGP	00-7F	24	FM(BG,I,DK)Prescale	
7A	FMP	00-7F	40	FM(M) Prescale	
7B	WGP	00-7F	3C	W.G.Prescale	
7C	NIP	00-7F	7F	NICAM Prescale	
7D	CRM	00-01	00	Carrier Mute	
7E	CML	00-03	00	Carrier Mute Level	
7F	ACO	00-01	01	Audio Clock Out	
80	WAC	00-0F	01	W.G Agreement count	
81	DLY	00-FF	30	Stereo Search Delay	
82	DLG	00-FF	10	W.G. Search Delay	
83	TXP	00-0F	0E	Text Picture cont.	SAA 5281
84	MXP	00-0F	0F	Text Mix mode Pic.	
85	BB1	00-3F	1D	BBE control High	CXA1315 (BBE)
86	BB2	00-3F	1D	BBE control Middle	
87	BB3	00-3F	28	BBE control Low	
88	ATW	00-03	01	Auto Wide Ident Speed	CXP5068
89	BKP	00-FF	00	Blk off Picture	CXP85340 (MICRO CONTROLLER)
8A	OSH	00-3F	0A	OSD Position H	
8B	ODL	00-FF	00	Power On Delay	
8C	BLU	00-01	01	Blue Back on/off	
8D	ROC	00-0F	08	N/S Center Vol.	
8E	ROS	00-07	04	User Step	
8F	DKS	00-01	00	D/K Stereo Search	
90	MUT	00-01	01	No Sync. Mute	
91	DID	00-01	00	Disable Degauss	
92	DWZ	00-01	01	Disable Widezoom	
93	BCS	00-01	00	BASS Center Shift	
94	BVS	00-01	00	Basso Volume Shift	
95	OP0	00-FF	00	Option 0	
96	OP1	00-FF	32	Option 1	

NOTE

- **Fixed items** are fixed data
- 50 ... 50Hz data, 60 ... 60Hz data
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.

ITEM INFORMATION.

No. 95 OP0

Item	-	-	-	-	-	-	-	Fastext
KV-J29MN1	0	0	0	0	0	0	0	0

No. 96 OP1

Item	Wide	Woofer	Tilt	VM	Comb type	Comb filter	SECAM	B/G only
KV-J29MN1	0	0	1	1	0	0	1	0

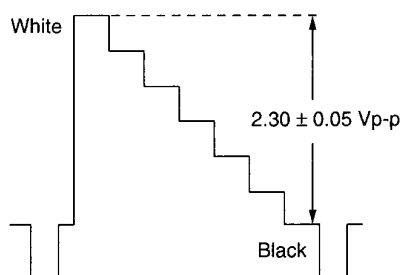
• 95 OP0, 96 OP1

Fastext : 0 → Automatic mode, 1 → Fastext mode
B/G only : 0 → Multi system, 1 → B/G system only
Comb type : 0 → Glass comb filter, 1 → Digital comb filter
Wide : 0 → 4:3 model, 1 → 16:9 model

5-3. PICTURE QUALITY ADJUSTMENTS

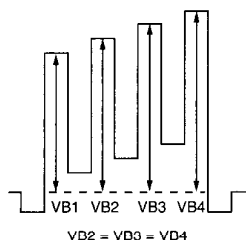
SUB CONTRAST ADJUSTMENT (SCN)

1. Receive a PAL color-bar.
2. Set service item 3E GON and 3F BON to data "00". Set the PICTURE 100%, BRIGHTNESS 50% and COLOR MIN.
3. Connect an oscilloscope to the pin ⑥ (R OUT) of CN117, A board.
4. Set to Service Mode and select 32 SCN using [1] and [4] of the commander, then adjust to $2.30 \pm 0.05V$ using [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Receive a NTSC color-bar and adjust 32 SCN as step 2 to 5.
7. Set service item 3E GON and 3F BON to data "01".



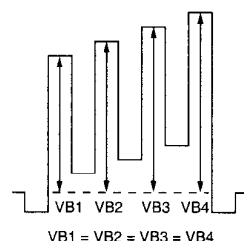
SUB COLOR ADJUSTMENT (SCO)

1. Input a PAL color-bar.
2. Set service item 49 NLA to data "00"
Set to the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
3. Connect an oscilloscope to the pin ④ (B OUT) of CN117, A board.
4. Set to Service Mode and select 33 SCO with [1] and [4] of the commander then adjust to $VB2=VB3=VB4$ with [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Adjust 33 SCO as step 2 to 5 when receiving NTSC color-bar.
7. Set service item 49 NLA to data "0F" and write the data.



SUB HUE ADJUSTMENT (SHU)

1. Receive a NTSC color-bar.
2. Set the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%, HUE 0%
3. Connect an oscilloscope to the pin ④ (B OUT) of CN117, A board.
4. Select 34 SHU with [1] and [4] of the commander by setting to Service Mode and adjust to $VB1=VB2=VB3=VB4$ with [3] and [6].



5. Press [MUTING] → [0] of the commander to write the data.
6. Set to WIDE Mode by [MENU] button to write the same value as in step 4.

5-4. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

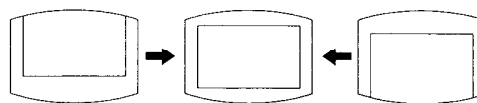
When replacing IC003 (MEMORY), be sure to change IC001 (μ-COM) to the following new IC at the same time.

1. Enter to Service Mode.
2. Press commander buttons **[5]** and **[0]** (Data Initialize), and **[2]** and **[0]** (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
In cases where items are not well adjusted, rectify the items with fine adjustment.
Write the data per each item number (**[MUTING]** + **[0]**).
4. Select item numbers 95 OP0 and 96 OP1 and respectively set the bit per model with command buttons **[3]** and **[6]**.
5. Press commander buttons **[8]** and **[0]** (Test Normal) to return to the data that was set on the shipment from the factory.
(This will also cancel Service Mode.)

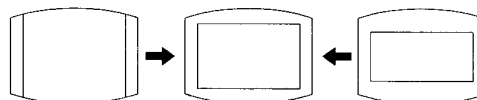
5-5. PICTURE DISTORTION ADJUSTMENT

Item Number 00 – 0B

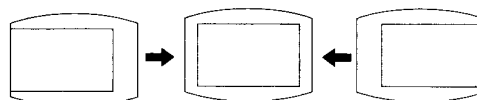
00 VSH (V POSITION)



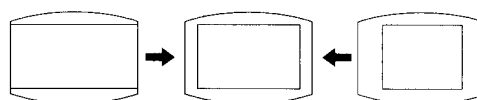
01 VSZ (V SIZE)



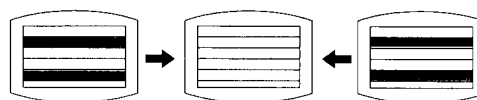
02 HSH (H POSITION)



03 HSZ (H SIZE)



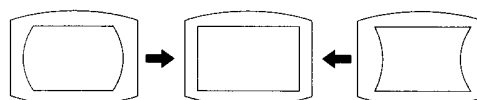
04 SCR (VERTICAL S-Correction)



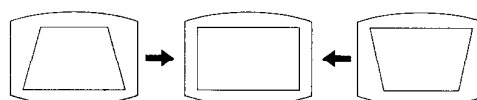
05 VLN (V LINEARITY)



06 PAP (PIN AMP)

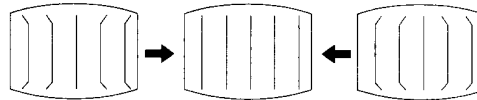


07 PPH (PIN PHASE)

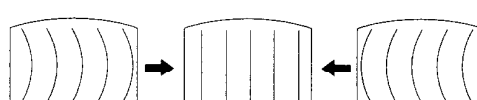


08 UCP (Upper Corner Pin)

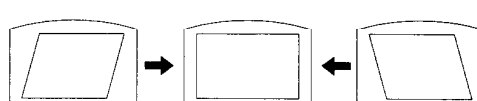
09 LCP (Lower Corner Pin)



0A VBOV (AFC.BOV)



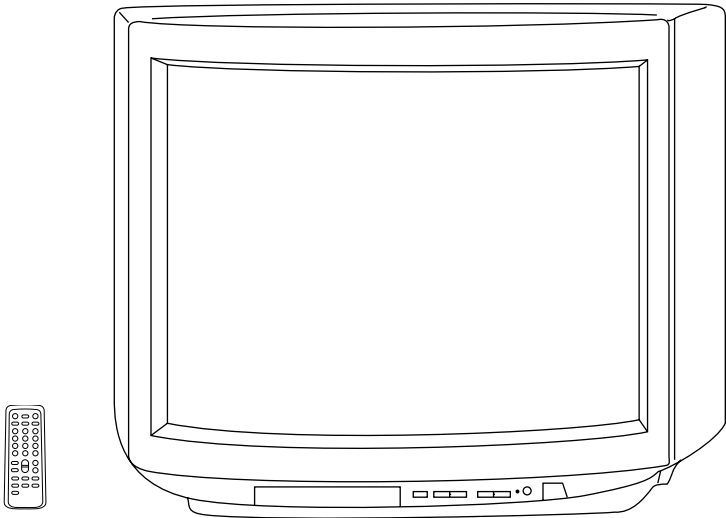
0B VAG (AFC.ANGLE)



SERVICE MANUAL

BG-1S (D)^{<REFINE>} CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KV-J25MN1	RM-883	India	SCC-K67N-A				



TRINITRON[®] COLOR TV
SONY[®]

SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo system	NICAM Stereo B/G, I; A2 Stereo (German) B/G	
Channel coverage		
B/G	VHF: E2 to E12/UHF: E21 to E69/CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68/CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12/UHF: C13 to C57, R21 to R60/ CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13/UHF: A14 to A79/ CATV: A-8 to A-2, A to W+ 4, W+ 6 to W+ 84	
Audio output (speaker)	5W + 5W + 15W (SUPER WOOFER)	
Inputs	Antenna: 75 ohms external terminal	
	VIDEO input jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms, high impedance S Video jack: Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	
Outputs	Headphone jack: minijack	
	MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
Picture tube	25 in.	
Tube size (cm)	64	Measured diagonally
Screen size (cm)	60	Measured diagonally
Dimensions (w/h/d, mm)	712 × 550 × 520	
Mass (kg)	36	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

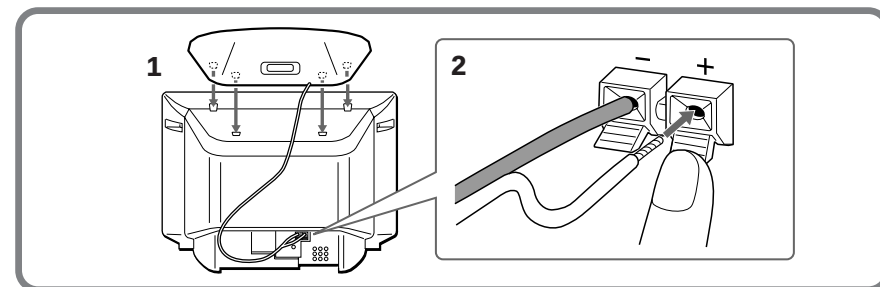
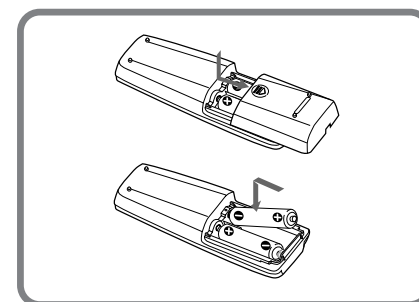
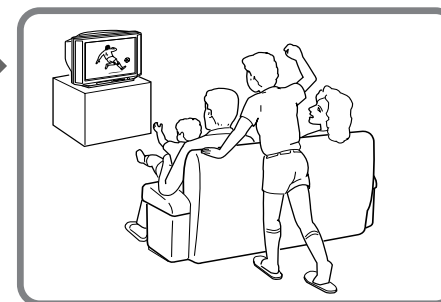
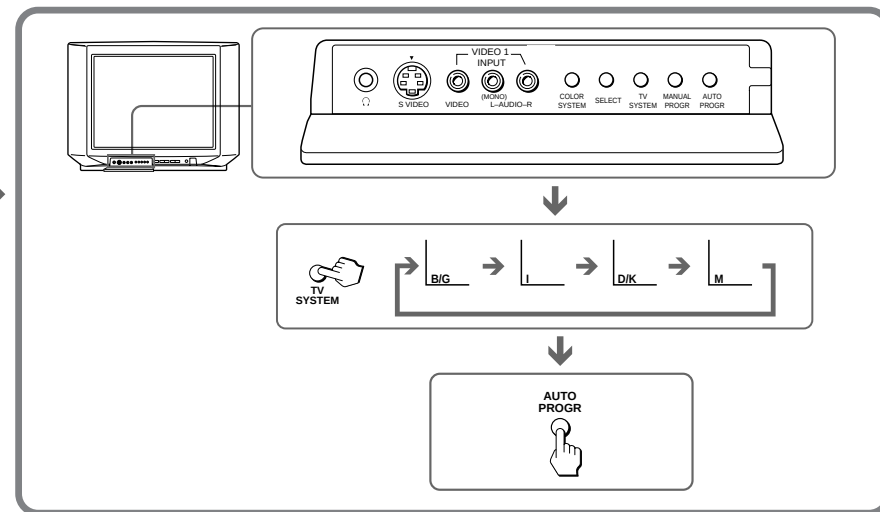
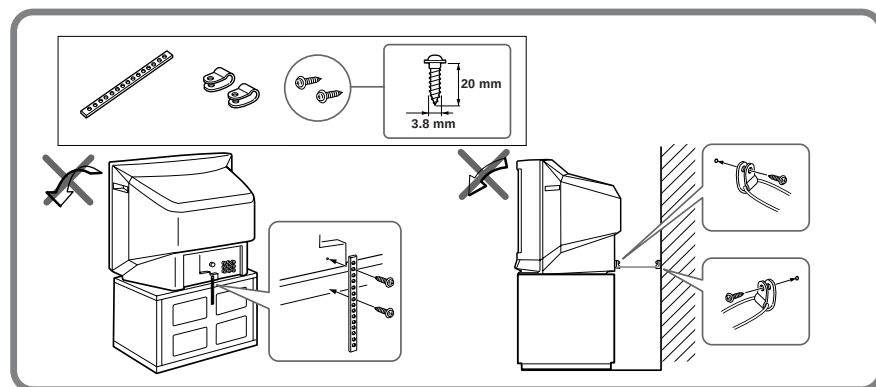
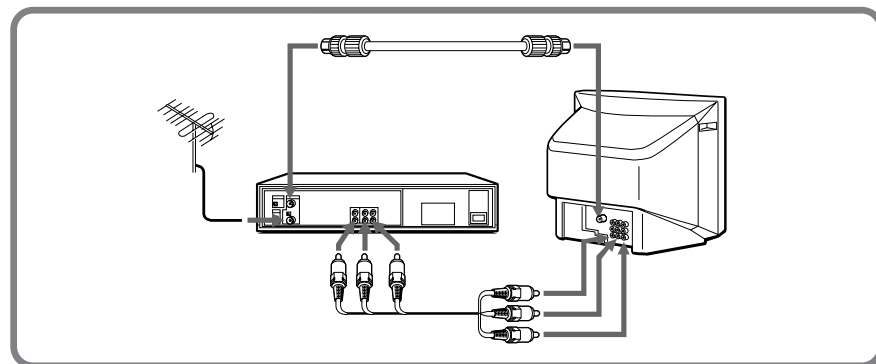
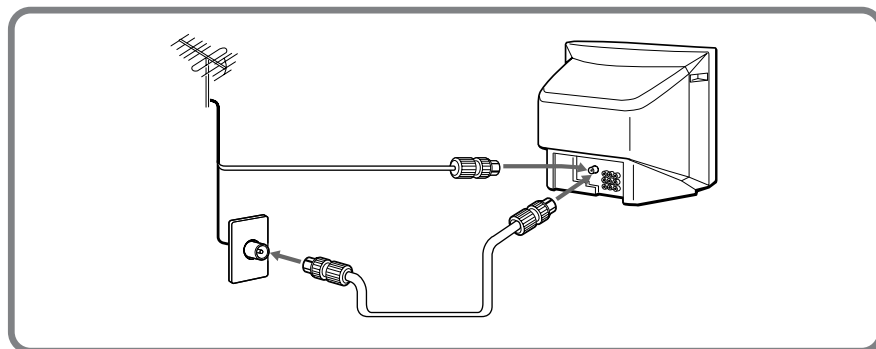
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL		4	6. DIAGRAMS		
2. DISASSEMBLY			6-1.	Block Diagram	27
2-1.	3D Speaker Removal	11	6-2.	Circuit Boards Location	31
2-2.	Rear Cover Removal	11	6-3.	Schematic Diagrams and Printed Wiring Boards.	31
2-3.	Speaker Removal	11	(1)	Schematic Diagram of A Board	35
2-4.	Chassis Assy Removal	11	(2)	Schematic Diagrams of A4, F1, H3, K1 and VM Boards	39
2-5.	Service Position	11	(3)	Schematic Diagrams of A3, A11 and K Boards ...	47
2-6.	A3, A4, A11 and A12 Boards Removal	12	(3)	Schematic Diagrams of A12, C and F2 Boards ...	51
2-7.	K1 Board Removal	12	6-4.	Semiconductors	57
2-8.	K Board Removal	12	7. EXPLODED VIEWS		
2-9.	F1 and H3 Boards Removal	13	7-1.	Picture Tube	60
2-10.	A and F2 Boards Removal	13	7-2.	Chassis	61
2-11.	Picture Tube Removal	13	7-3.	3D Speaker	62
3. SET-UP ADJUSTMENTS			8. ELECTRICAL PARTS LIST		63
3-1.	Beam Landing	15			
3-2.	Convergence	16			
3-3.	Focus Adjustment	18			
3-4.	G2 (Screen) and White Balance Adjustments	18			
4. SELF DIAGNOSIS FUNCTION		19			
5. CIRCUIT ADJUSTMENTS					
5-1.	Adjustments with Commander	20			
5-2.	Adjustment Method	21			
5-3.	A Board Adjustment after IC003 (Memory) Replacement	25			
5-4.	Picture Distortion Adjustment	25			

SECTION 1 GENERAL

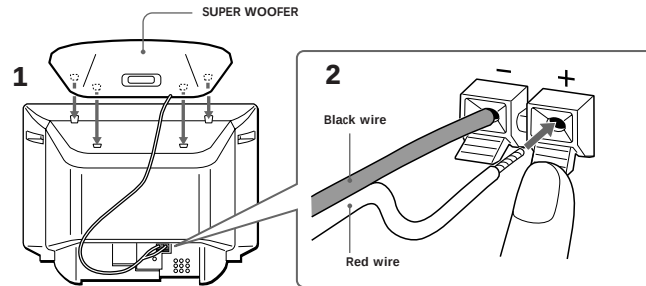
The operating instructions mentioned here are partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in this manual.



Connections

Connecting the SUPER WOOFER

- 1 Attach the SUPER WOOFER into the footholds on the top of the TV.
- 2 Connect the wires to the SUPER WOOFER (8Ω) terminals at the rear of the TV.
The red wire should be connected to the ⊕ red terminal and the black wire to the ⊖ black terminal.

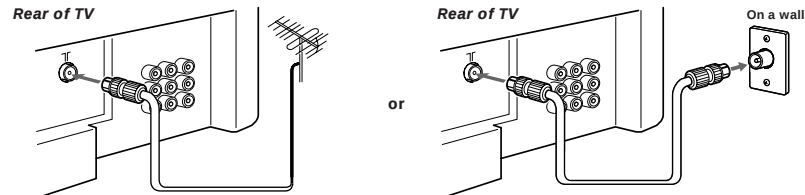


Notes

- Connect only the supplied SUPER WOOFER; otherwise the TV may malfunction.
- Unplug the TV from the wall outlet when connecting the SUPER WOOFER.
- To prevent a malfunction caused by a short circuit of the terminals, make sure that none of the SUPER WOOFER wire strands stick out, making contact with the neighbouring speaker terminal.

Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

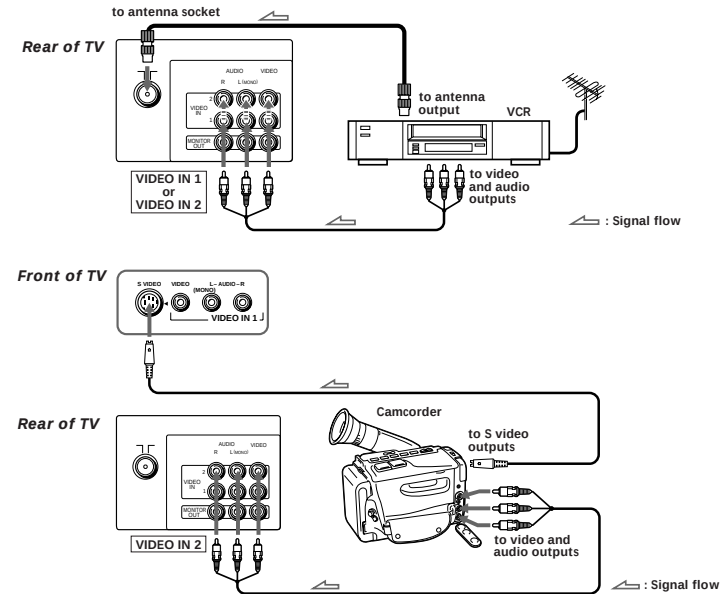
Attach an optional IEC antenna connector to the 75-ohm coaxial cable.
Plug the connector into the ㄗ (antenna) socket at the rear of the TV.



Connecting optional equipment

You can connect optional audio / video equipment to your TV such as a VCR, multi disc player, camcorder, video game, or stereo system.

Connecting video equipment using video input jacks



When connecting a monaural VCR

Connect the yellow plug to VIDEO and the black plug to AUDIO-L (MONO).

When connecting a VCR to the ㄗ (antenna) terminal

Preset the signal output from the VCR to the program position 0.

When using the video input jacks

Do not connect video equipment to the video input jacks at the front and the rear (VIDEO IN 1) of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

If both S Video and video signals are input simultaneously

The S Video signal is selected and "S VIDEO" appears on the screen.

To view a video input signal, disconnect the S Video connection and "VIDEO 2" appears on the screen.

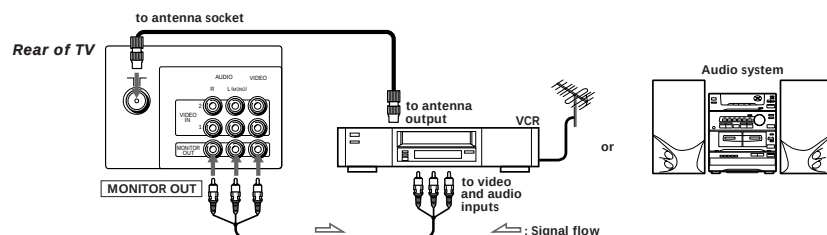
If S Video and video signals are input separately

"S VIDEO" and "VIDEO 2" appears on the screen respectively.

Note on the video input

When no signal is input, the screen becomes blue.

Connecting audio/video equipment using MONITOR OUT jacks

**CAUTION**

Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.

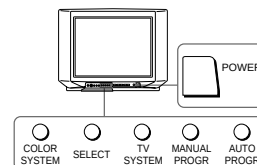
Presetting channels

You can preset up to 100 TV channels in numerical sequence from program position 1 automatically.

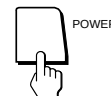
To change the channel for a particular program position or to receive a channel with a weak signal, you can preset the channel manually. You can also disable program position.

You can preset TV channels using the buttons on the TV or the remote commander.

Presetting channels automatically using the buttons on the TV



1 Press POWER to turn on the TV.



When the TV is turned on in standby mode, press POWER on the remote commander.

2 Press TV SYSTEM until your local TV system appears.



TV SYSTEM

3 Press AUTO PROGR.



AUTO PROGR

To start presetting channels automatically from the specified program position

- 1 Press MANUAL PROGR.
- 2 Press TV SYSTEM to select your local TV system.
- 3 Press PROGR +/- to select the program position.
- 4 Press AUTO PROGR.

Presetting channels manually using the buttons on the TV

- 1 Press MANUAL PROGR.
- 2 Press PROGR +/- on the remote commander until the required program position appears on the screen.
- 3 Press TV SYSTEM until your local TV system appears.
- 4 Press VOLUME +/- until the required channel picture appears on the screen.
- 5 Press MANUAL PROGR.

If the TV system is not properly selected

The color of the picture may be poor and/or the sound may be noisy. In this case, select the appropriate TV system.

- 1 Press PROGR +/- on the remote commander to select the program position.
- 2 Press TV SYSTEM until the picture and sound become normal.

Notes

- If you do not know your local TV system, consult your nearest authorized service center or dealer.
- The setting of the TV SYSTEM is memorized for each program position.

Disabling program positions using the buttons on the TV

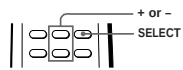
By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/- on the remote commander.

- 1 Press PROGR +/- on the remote commander until the unused or unwanted program position appears on the screen.
- 2 Press MANUAL PROGR.
- 3 Press PIC MODE on the remote commander.
- 4 Press MANUAL PROGR.

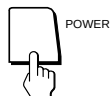
To cancel the skip setting

Preset the channel manually or automatically again.

Presetting channels automatically using the remote commander

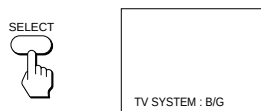


- 1 Press **POWER** to turn on the TV.

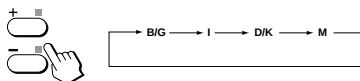


When the TV is turned on in standby mode, press **POWER** on the remote commander.

- 2 Press **SELECT** until “TV SYSTEM” appears.



- 3 Press **+** or **-** to select your local TV system.



- 4 Press **SELECT** until “AUTO PROGRAM” appears.



- 5 Press **+** or **-**.



- 6 Press **+** or **-**.

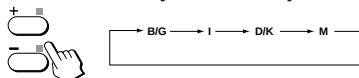


Presetting channels manually using the remote commander

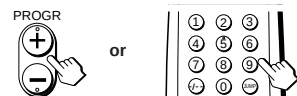
- 1 Press **SELECT** until “TV SYSTEM” appears.



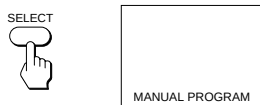
- 2 Press **+** or **-** to select your local TV system.



- 3 Press **PROG +/-** or a number button until the required program appears on the screen.



- 4 Press **SELECT** until “MANUAL PROGRAM” appears.



- 5 Press **+** or **-**.



- 6 Press **+** or **-**.



The selected channel appears on the screen.

- 7 Press **SELECT** to return to normal screen.



If you are not satisfied with the picture and sound quality

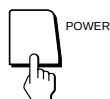
You may be able to further improve the picture and sound quality by using fine tuning as below:

- 1 Select the program position you want to adjust.
- 2 Press **SELECT** until “MANUAL PROGRAM” appears on the screen.
- 3 Press **+** or **-** on the remote commander once.
- 4 Press **DISP** until “FINE” appears on the screen.
- 5 Press **+** or **-** continuously until you are satisfied with the picture and sound quality.
- 6 Press **SELECT** to return to normal screen.

Operations

Watching the TV

1 Press POWER to turn on the TV.

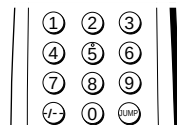


When the TV is turned on in standby mode, press POWER on the remote commander.

2 Select the TV program you want to watch.

To select a program position directly

Press the number button.



To select a two-digit program position, press “-/-” before pressing the number buttons.

For example: to select program position 25, press “-/-,” and then “2” and “5.”



To scan through program positions

Press PROGR +/- until the program position you want appears.



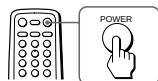
3 Press VOL +/- to adjust the volume.



Turning off the TV

To turn off the TV temporarily

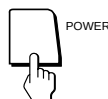
Press POWER on the remote commander. The STANDBY indicator on the TV lights up.



To turn off the TV completely

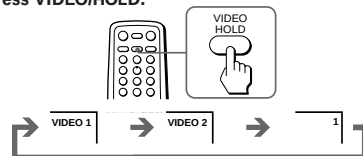
Press POWER on the TV.

If the power on the TV is turned off in standby mode, the STANDBY indicator on the TV may remain alight for a while.



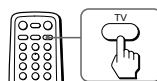
Watching the video input

Press VIDEO/HOLD.



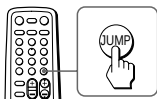
To watch TV

Press TV.



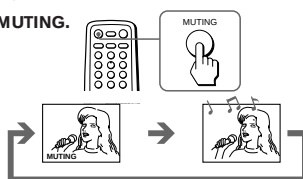
Switching back quickly to the previous channel

Press JUMP.



Muting the sound

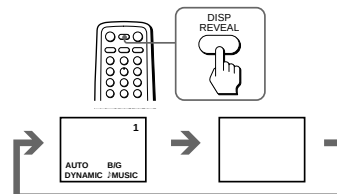
Press MUTING.



Displaying on-screen information

Press DISP/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

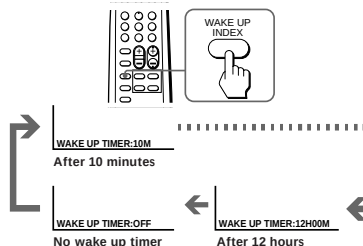


Setting the Wake Up Timer

You can set the TV to automatically turn on as you have programmed.

1 Press WAKE UP/INDEX repeatedly to set the timer.

The on-screen display appears and the WAKE UP indicator on the TV lights up.



2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video input.

3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.

To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until “WAKE UP TIMER: OFF” appears, or turn off the main power of the TV.

Notes

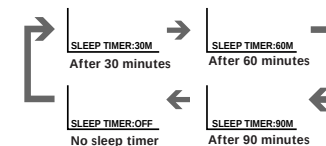
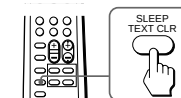
- The Wake Up Timer starts immediately after the on-screen display disappears.

- The last TV program position or video input just before the TV turns into standby mode will appear when the TV is turned on using the WAKE UP Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. If you want to continue watching the TV, press any button or control on the remote commander or the TV.

Setting the Sleep Timer

You can set the TV to automatically turned off as you have programmed.

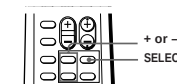
Press SLEEP/TEXT CLR.



To cancel the Sleep Timer, press SLEEP/TEXT CLR repeatedly until “SLEEP TIMER: OFF” appears, or turn off the TV.

Changing the on-screen display language

You can use buttons on the remote commander or the TV to change the on-screen display language.



1 Press SELECT until the screen appears as follows:



2 Press + or - to select “中文”.

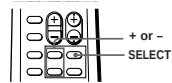


Note

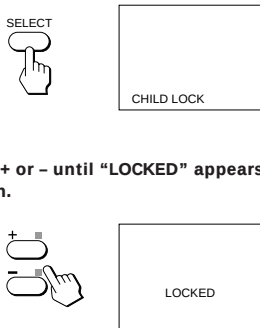
- You can also use SELECT and VOLUME +/- on the TV to select the on-screen display language.

Using the Child Lock feature

You can prevent a child from watching certain program positions by using the buttons on the remote commander.



- 1 Select the TV program you want to lock.
- 2 Press SELECT until "CHILD LOCK" appears on the screen.
- 3 Press + or - until "LOCKED" appears on the screen.



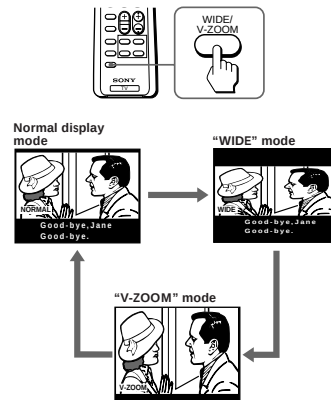
Notes

- To unlock the program position, repeat steps 1 to 3 as above until "LOCKED" disappears from the screen.
- To prevent your child from unlocking the program position, keep the remote commander away from your child.

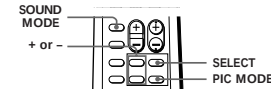
Watching the picture in wide mode

You can adjust the display mode accordingly to fit the programs to your TV screen size.

Press WIDE/V-ZOOM repeatedly until the wide display mode you want appears on the screen.

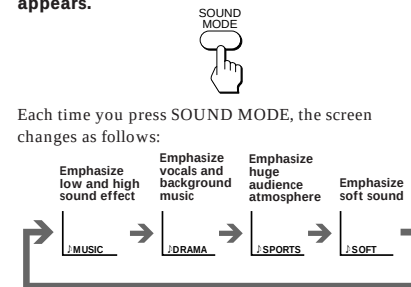


Adjusting the sound and picture

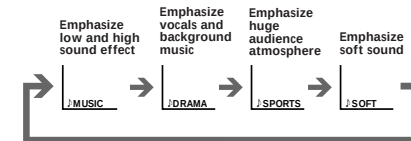


Selecting the sound mode

Press SOUND MODE until the mode you want appears.

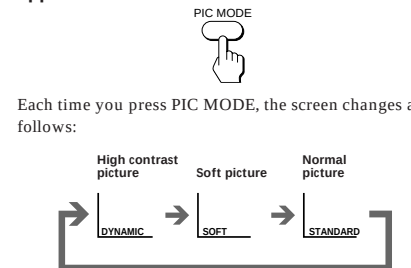


Each time you press SOUND MODE, the screen changes as follows:



Selecting the picture mode

Press PIC MODE until the mode you want appears.



Note

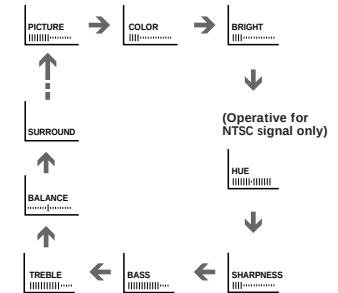
- If you change the picture and sound mode after the following adjustments, the adjustment changes in accordance with the picture and sound mode.

Adjusting the sound and picture settings

- 1 Press SELECT until the item you want to adjust appears.



Each time you press SELECT, the screen changes as follows:



- 2 Press + or - to adjust the item.

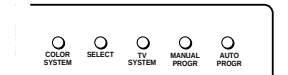


- 3 To adjust other items, repeat steps 1 and 2.

Notes

- You can also use SELECT and VOLUME +/- on the TV to adjust the sound and picture settings.
- SURROUND is only applicable to a stereo signal. When receiving a monaural signal, please turn off SURROUND for the best sound.

Front of TV



If the picture color is abnormal when receiving programs through the T (antenna) terminal

Change the "TV SYSTEM" or "COL. SYS" setting or adjust the "COLOR" level in the on-screen display until the color becomes normal.

If the picture color is abnormal when receiving programs through the video input jack

Change the "COL. SYS" setting or adjust the "COLOR" level in the on-screen display until the color becomes normal.

Note

- Normally set "COL. SYS" to "AUTO".

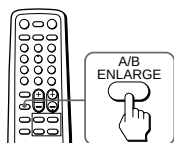
If the sound is distorted or noisy when receiving programs through the T (antenna) terminal

Change the "TV SYSTEM" setting in the on-screen display until the sound becomes clear.

Selecting a stereo or bilingual program

Press **A/B/ENLARGE** repeatedly until you receive the sound you want.

The on-screen display changes corresponding to the selected sound and the WAKE UP/STEREO indicator also lights up.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	
NICAM bilingual	
NICAM monaural	

When receiving an A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	
A2 (German) bilingual	

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, however, the noise will be reduced.

If the sound is distorted or noisy when receiving a monaural program through the (antenna) terminal

Press **A/B/ENLARGE** repeatedly until "MONO" appears on the screen.



To cancel the monaural sound setting, press **A/B/ENLARGE** again until "AUTO" appears on the screen.

Notes

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive stereo signal when the TV is in the "MONO" setting.

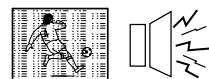
Additional Information

Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.

If the problem persists, contact your nearest authorized service center or dealer.

Snowy picture Noisy sound



- Check the antenna.
- Check the antenna connection on the TV and on the wall.
- Check the "TV SYSTEM" setting.

Dotted lines or stripes



- This may be caused by local interference (e.g. cars, neon signs and hair dryers). Adjust the antenna for minimum interference.

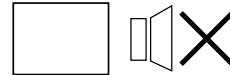
Double images or "ghosts"



- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

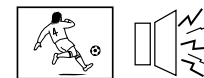
No picture

No sound



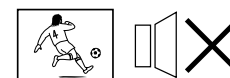
- Press **POWER**.
- Check the antenna connection.
- Check the VCR connections.
- Check the power cord connection.
- Check the standby mode.

Good picture Noisy sound



- Check the "TV SYSTEM" setting.
- Reduce the **TREBLE** level or select the "SOFT" sound mode.

Good picture No sound



- Press **VOLUME +**.
- Press **MUTING**.
- Press **A/B/ENLARGE**.

No color



- Adjust the **COLOR** level in the on-screen display.
- Check the "COL. SYS" setting.

TV cannot receive stereo signal

- Press **A/B/ENLARGE** until "AUTO" appears on the screen.

TV cabinet creaks

- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

Note on the remote commander

- The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. **TEXT**.

Notes

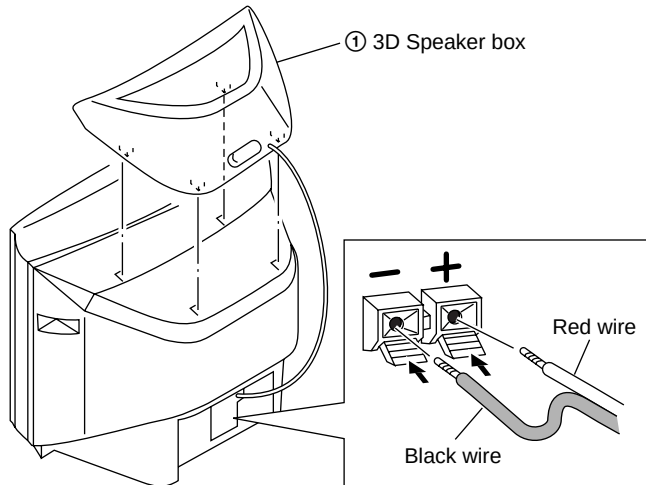
- When you switch on the TV, you may hear the "boon" sound that is caused by the demagnetization of the TV. This does not indicate a malfunction.
- The picture color may become abnormal if you change the direction of your TV. To obtain the normal picture color, press **POWER** on the TV to switch off the TV for five minutes and then switch it on again.

WARNING

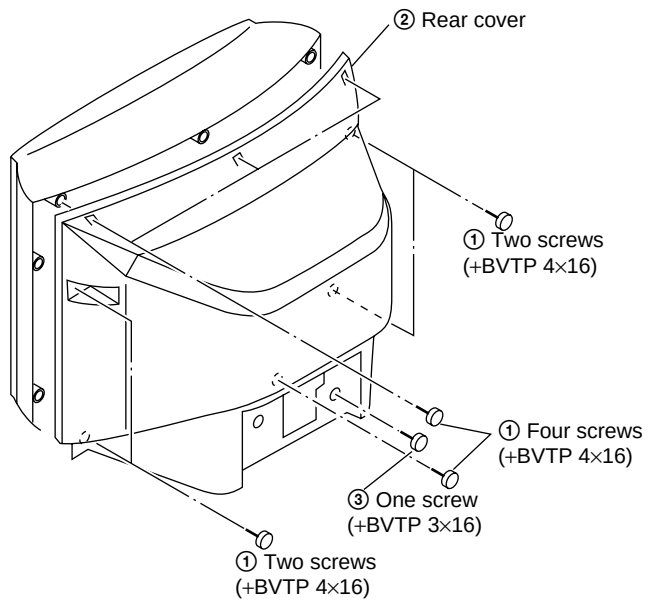
Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

SECTION 2 DISASSEMBLY

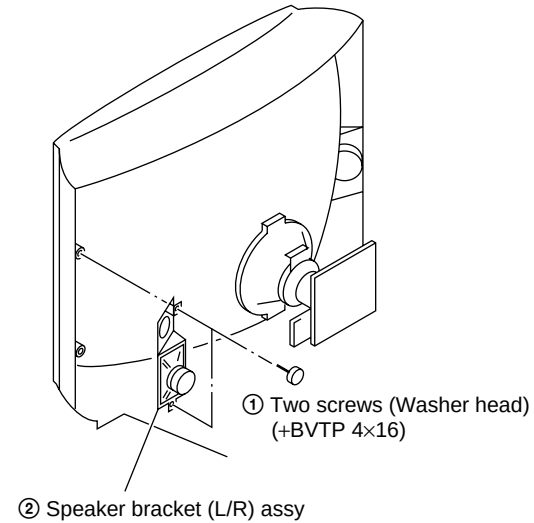
2-1. 3D SPEAKER BOX REMOVAL



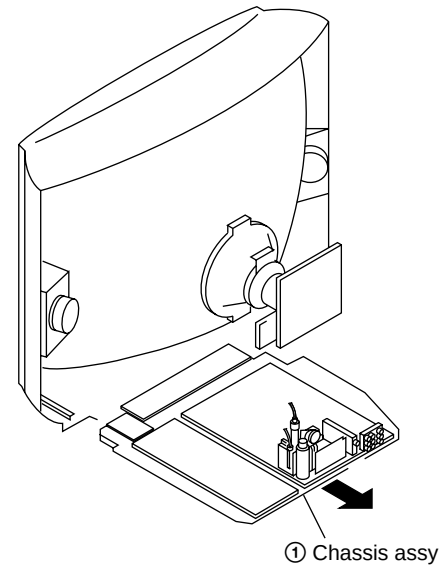
2-2. REAR COVER REMOVAL



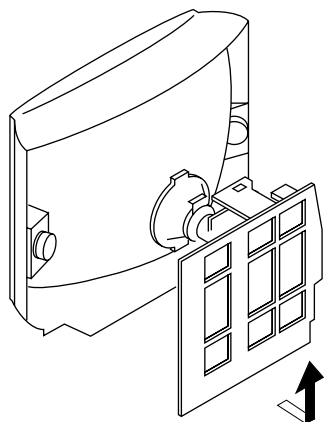
2-3. SPEAKER REMOVAL



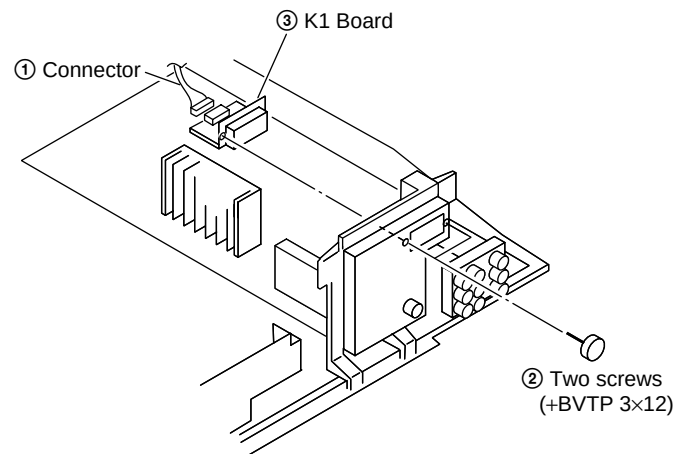
2-4. CHASSIS ASSY REMOVAL



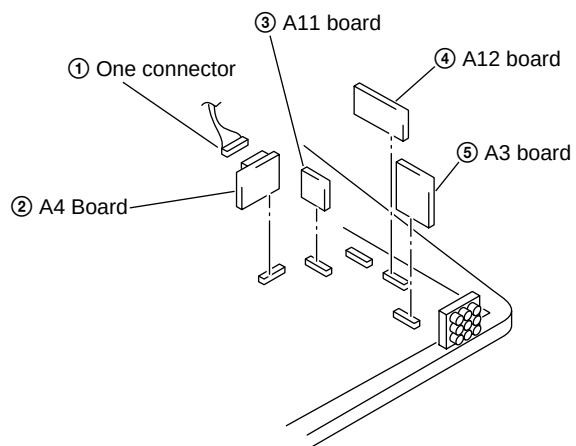
2-5. SERVICE POSITION



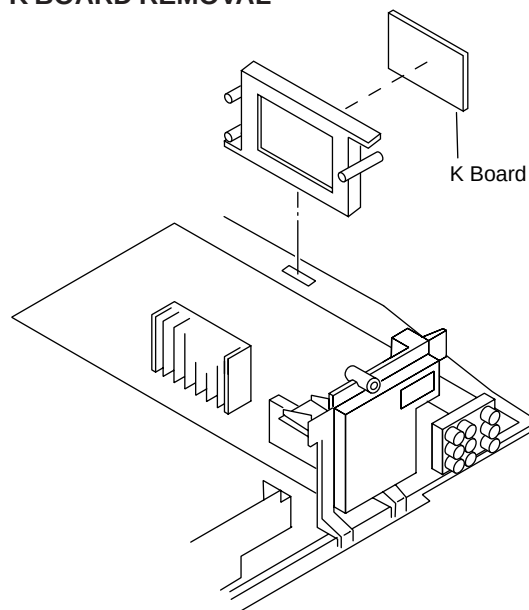
2-7. K1 BOARD REMOVAL



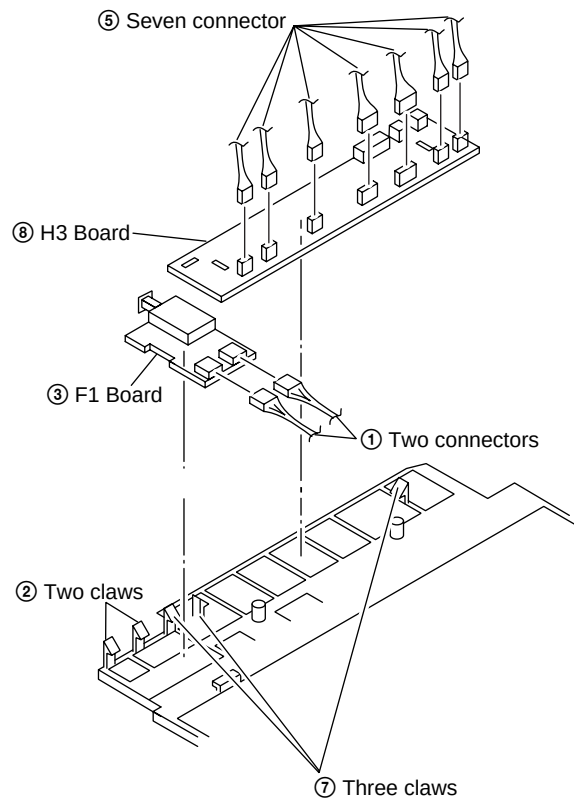
2-6. A3, A4, A11 AND A12 BOARDS REMOVAL



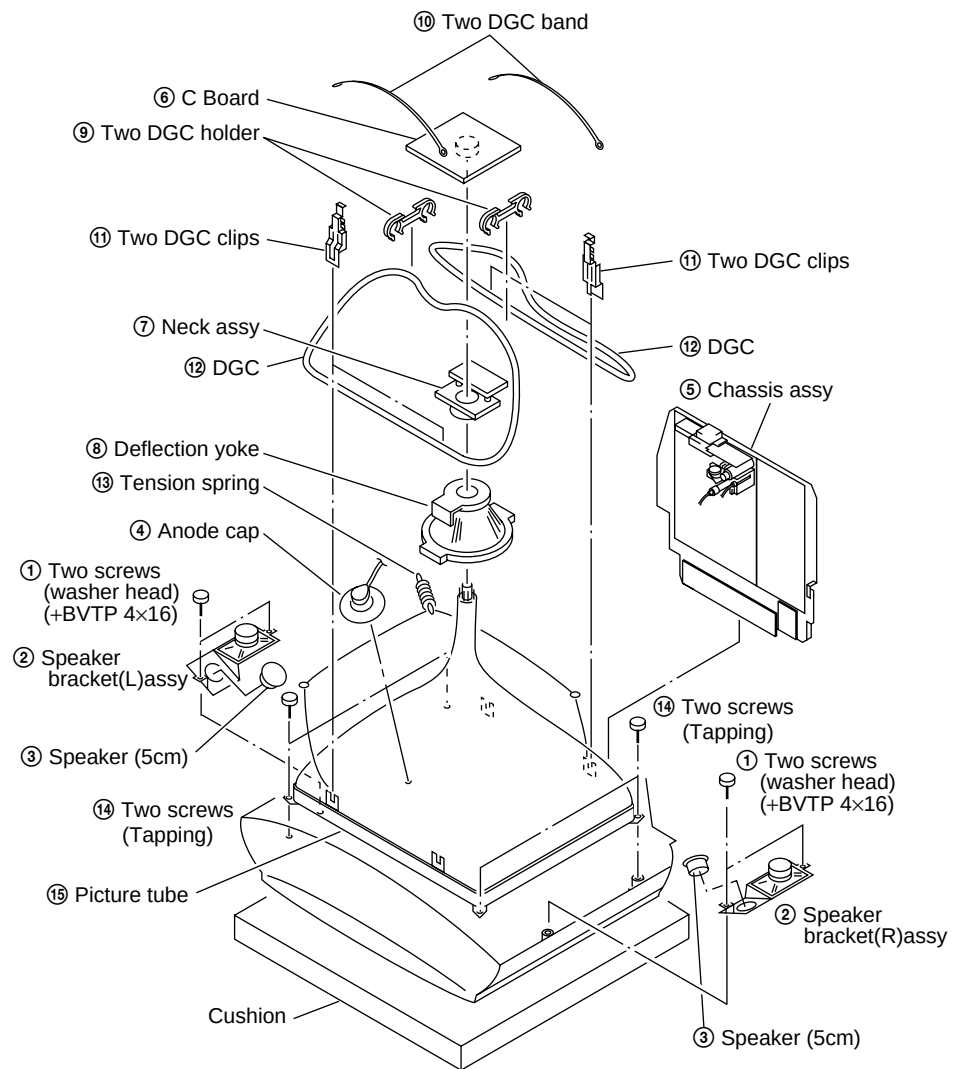
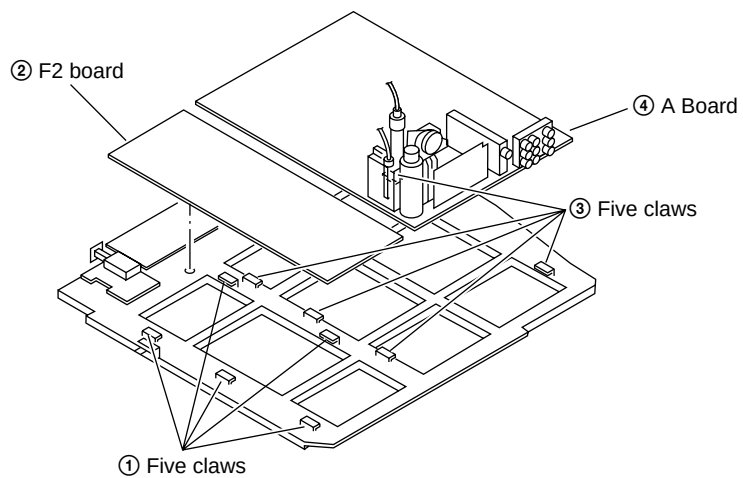
2-8. K BOARD REMOVAL



2-11. PICTURE TUBE REMOVAL



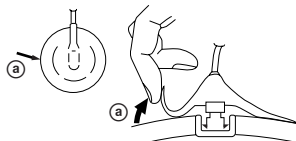
2-10. A AND F2 BOARDS REMOVAL



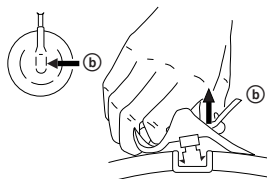
•REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

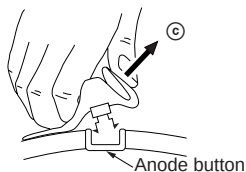
•REMOVING PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).



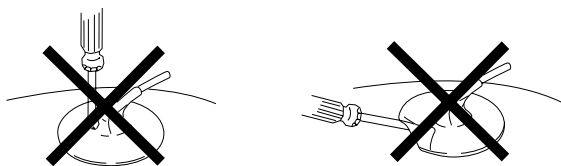
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c).

• HOW TO HANDLE AN ANODE-CAP

- ① Do not damage the surface of anode-caps with sharp shaped objects.
- ② Do not press the rubber too hard so as not to damage the inside of anode-cap.
A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard.
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

PICTURE control normal

BRIGHTNESS control normal

Perform the adjustments in the following order:

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required:

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
 Contrast } normal
 Brightness }
2. Position neck assy as shown in Figure 3-1.
3. Set the pattern generator raster signal to green.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
 (See Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 3-4.)

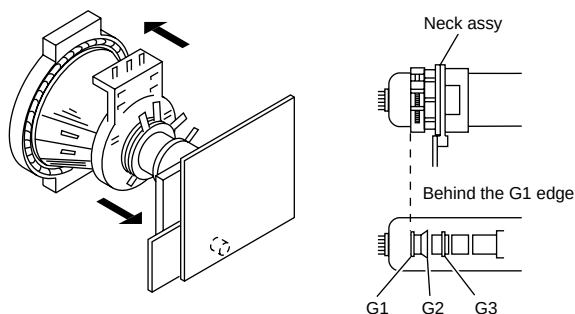


Fig. 3-1

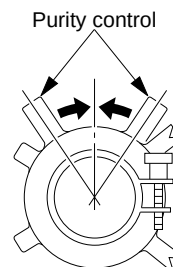


Fig. 3-2

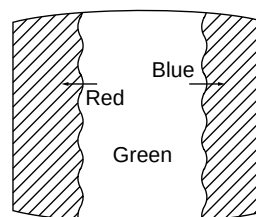


Fig. 3-3

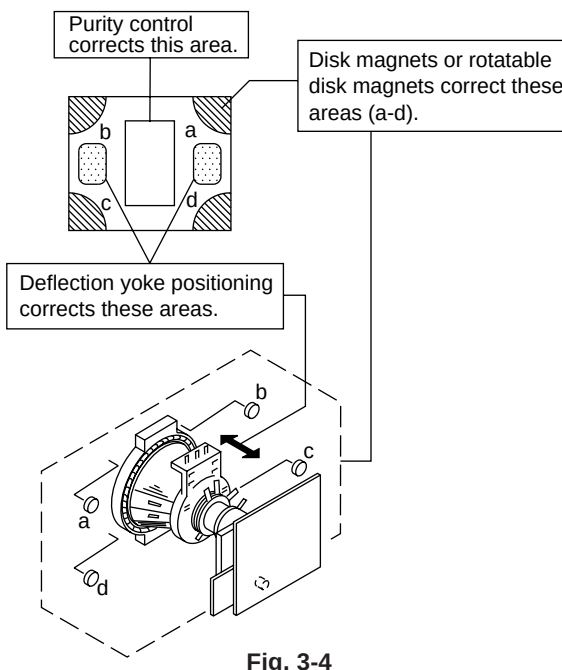


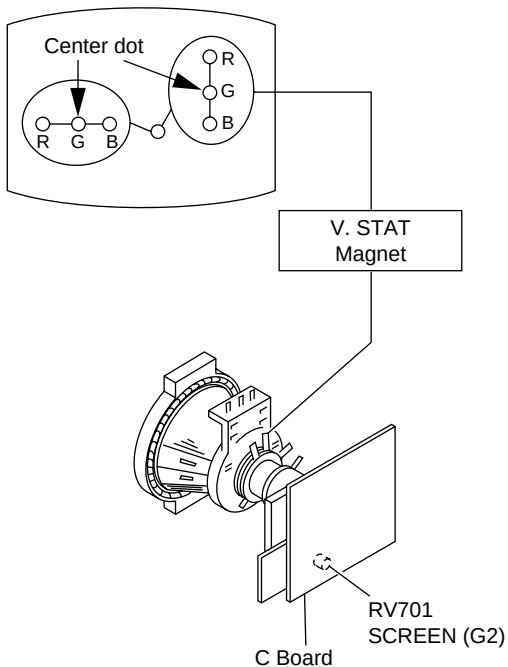
Fig. 3-4

3-2. CONVERGENCE

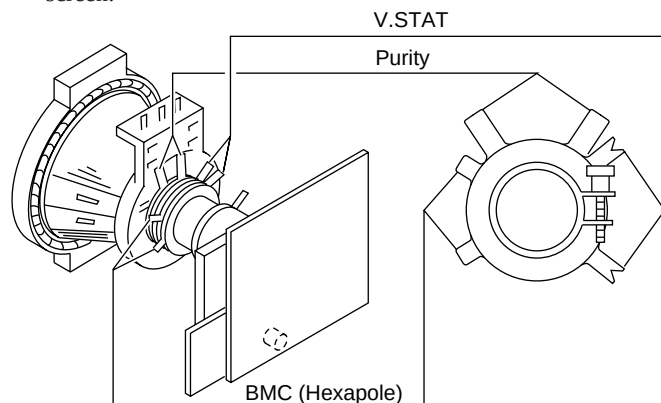
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence

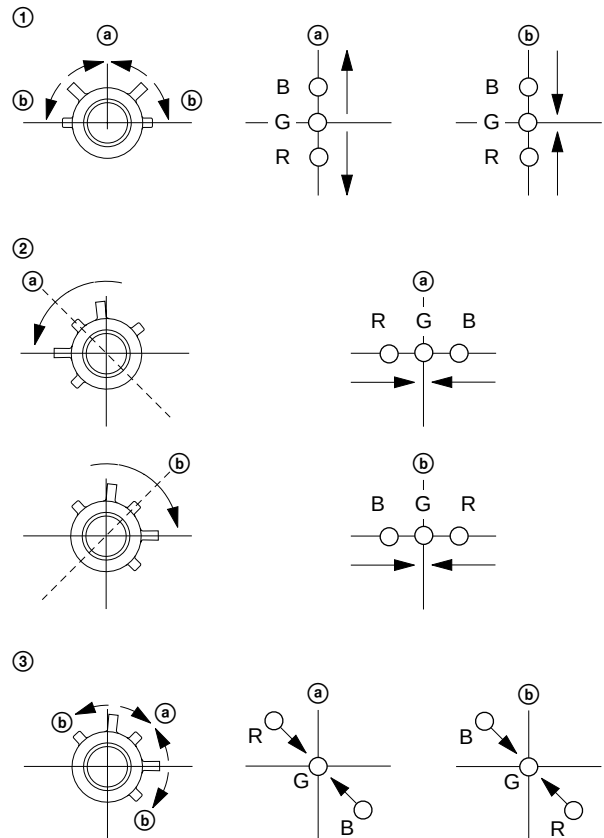


1. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving horizontally), adjust the H.STAT VR so that the red, green and blue dots are on top of each other at the center of the screen.



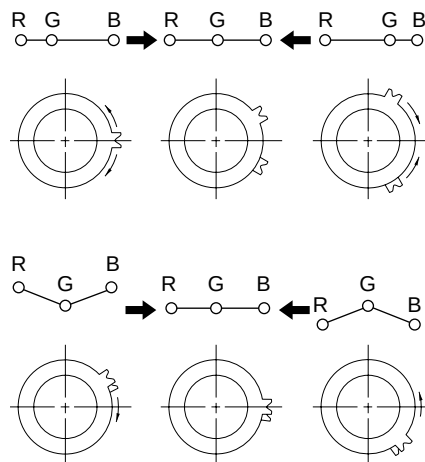
- Operation of V.STAT magnet.

If the V.STAT magnet is moved in the direction of the ① and ② arrows, the red, green and blue dots move as shown below.



- Operation of BMC (Hexapole) magnet.

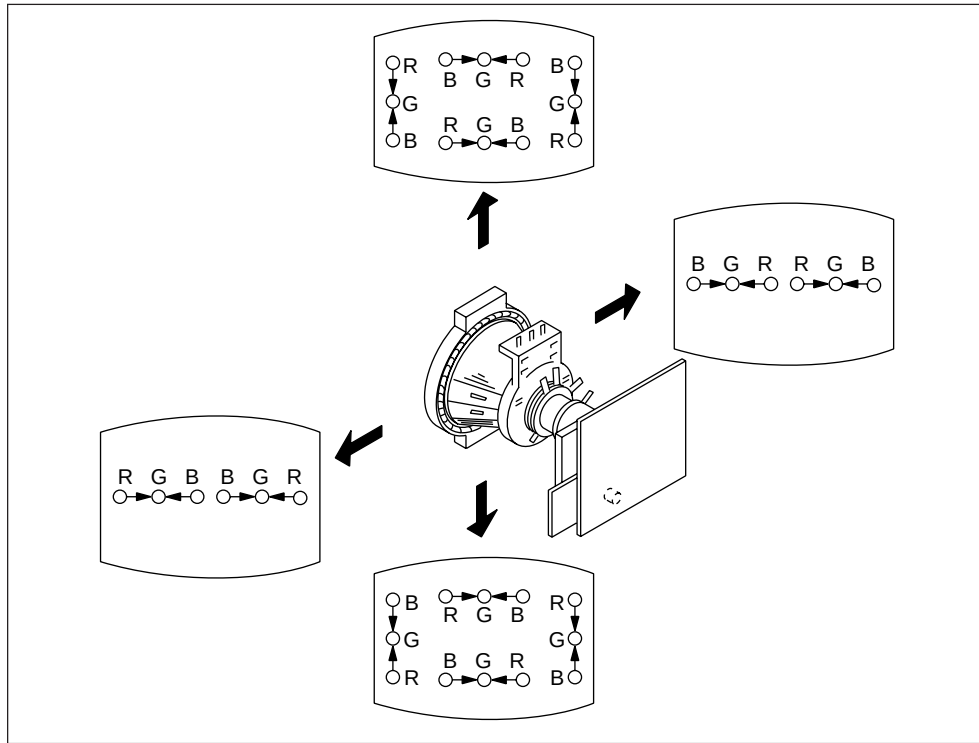
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



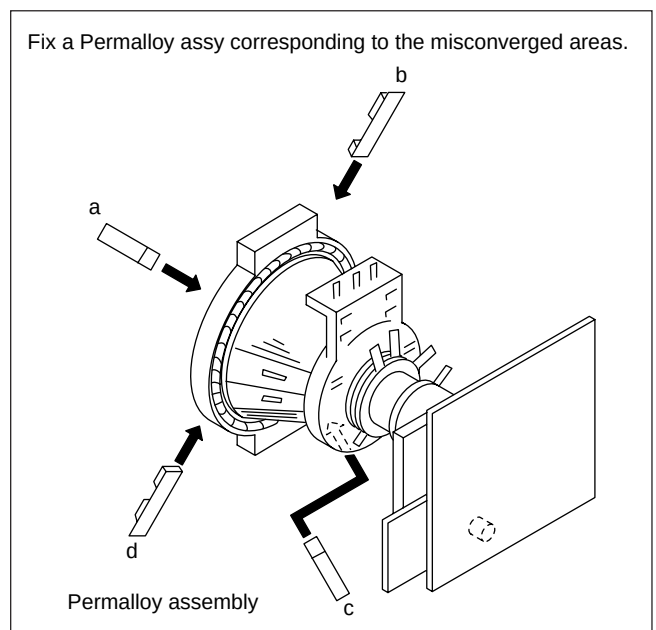
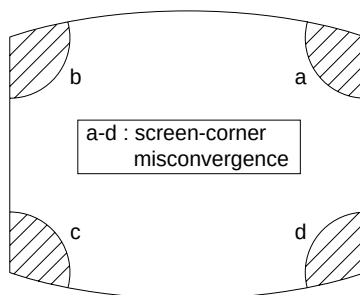
(2) Dynamic Convergence Adjustment

Preparation :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
 2. Remove the deflection yoke spacer.
 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
 4. Tighten the deflection yoke screws.
 5. Install the deflection yoke spacer.

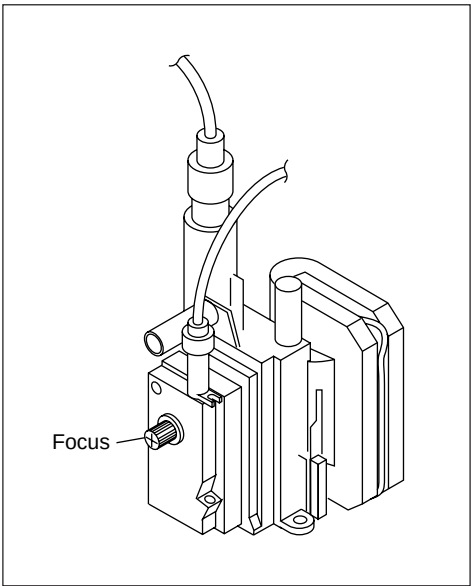


(3) Screen-corner Convergence



3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.



a. AN ITEM OF ADJUSTMENT

Item number	Adjustment item	Initial DATA	Note
09	RDR	28	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

b. METHOD OF CANCELLATION FROM SERVICE MODE

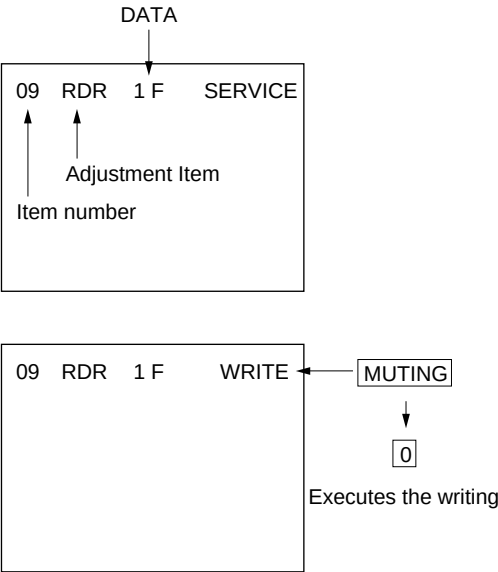
Set the standby condition (Press **POWER** button on the commander) and then press **POWER** button again, hereupon it becomes TV mode.

c. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN) to select an item of adjustments.
- 3) Press **MUTING** button and it will indicate WRITE on screen.
- 4) Press **0** button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

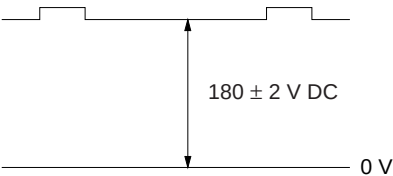
- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT (RV701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



2. WHITE BALANCE ADJUSTMENTS

- 1) Set to Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with **1** and **4** , and then set the level to 28 with **3** and **6** .
- 5) Select GDR(0A) and BDR(0B) with **1** and **4** and adjust the level with **3** and **6** for the best white balance.
- 6) Write into the memory by pressing **MUTING** , then **0** .

SECTION 4

SELF DIAGNOSIS FUNCTION

If no acknowledgement is returned from a device which is turned "ON", the device has a problem.
In this case, one of the LED's responding to the problem device will flicker a defined number of times.

Flickering is operated by lighting the LED's for 60ss each time.

The flickering frequency responding to each failed device is shown below.

Device	NONVOLA- TILE MEMORY	—	Y/C JUNGLE	—	—	TONE CONTROL (IC 201)
Flickering Frequency	1	—	3	—	—	6

All the devices are checked one after another from the left of the table.

If an error is found, the responding LED will start flickering.

So, if more than 1 device have failed, only the one on the left side will flicker.

SECTION 5
CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-883 that comes with this unit.

Entering service mode

With the unit on standby

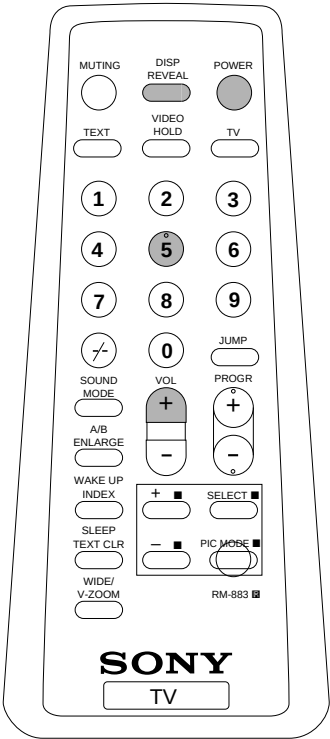
DISPLAY

5

VOL (+)

POWER

The operation sequence puts the unit into service mode.



RM-883

1, 4

3, 6

MUTING

0

Raise/lower the service item number

Raise/lower the data

Writes

Executes the writing

7, 0

8, 0

5, 0

2, 0

All data becomes the values in memory

All user control goes to the standard state

Service data initialization (Be sure not to use usually.)

Write 50Hz adjustment data to 60Hz, or viceversa.

The screen display is :

Adjustment item

DATA

00 RGB 08 SERVICE

0000 1000 50

Item number

Mode

Depends on the signals

PAL, SECAM : 50

NTSC : 60

1, 4

3, 6

MUTING

0

Select the adjustment item.

Raise/lower the data.

Writes

Executes the writing.

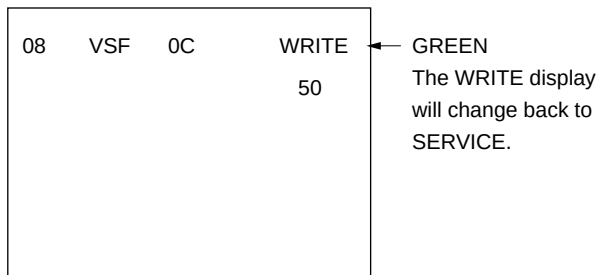
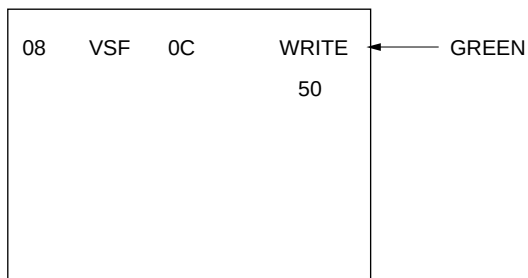
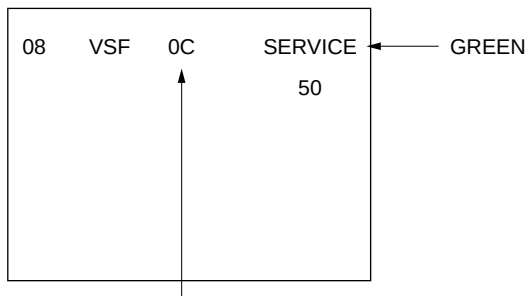
5-2. ADJUSTMENT METHOD

Item Number 08

This explanation uses V-SHIFT as an example.

1. Select 08 V-SHIFT with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 0F for PAL reception.)
4. Write with the [MUTING] button.
5. Execute the writing with the [0] button. (The WRITE display returns to green SERVICE.)

Use the same method for Items Number 00-4B. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].



Write executed with [0] .

Adjustment Item Table

Item number	Adjustment Item	Data range	Initial data	Standard data		Note	Device
00	HSF	00-3F	24			H SHIFT	TDA8375
01	HSZ	00-3F	23			H SIZE	TDA8375
02	PAP	00-3F	21			PIN AMPLITUDE	TDA8375
03	CNP	00-3F	29			CORNER PIN	TDA8375
04	TLT	00-3F	20			TILT	TDA8375
05	VSL	00-3F	20			V SLOPE	TDA8375
06	VAP	00-3F	1D			V AMPLITUDE	TDA8375
07	SCR	00-3F	20			S CORRECTION	TDA8375
08	VSF	00-3F	20			V SHIFT	TDA8375
09	RDR	00-3F	28			WHITE POINT R	TDA8375
0A	GDR	00-3F	20			WHITE POINT G	TDA8375
0B	BDR	00-3F	20			WHITE POINT B	TDA8375
0C	FO	00-03	00			∅ TIME CONSTANT	TDA8375
0D	AGC	00-3F	30			AGC TAKE OVER	TDA8375
0E	VSW	00-01	00	TV:00	VIDEO:01	VIDEO MUTE	TDA8375
0F	FOR	00-03	03			FORCED FIELD FREQ.	TDA8375
10	DL	00-01	00			INTERLACE	TDA8375
11	POC	00-01	00			SYNCHRO MODE FIX	TDA8375
12	VID	00-01	00			VIDEO IDENT MODE	TDA8375
13	HCO	00-01	00			EHT TRACKING MODE	TDA8375
14	EVG	00-01	00			ENABLE V GUARD	TDA8375
15	SBL	00-01	00			SERVICE BLANKING	TDA8375
16	PRD	00-01	00			OVER-VOLTAGE INPUT	TDA8375
17	COR	00-01	01			NOISE CORING PEAK	TDA8375
18	PMX	00-3F	2C			PICTURE MAX DATA	TDA8375
19	PMI	00-3F	04			PICTURE MIN DATA	TDA8375
1A	SBR	00-7F	4B			SUB-BRIGHTNESS	TDA8375
1B	SHU	00-0F	06			SUB-HUE	TDA8375
1C	SSH	00-03	01	TV:01	VIDEO:02	SUB-SHARPNESS	TDA8375
1D	SC1	00-3F	1F	50:26	60:29	SUB-COLOR LOWER	TDA8375
1E	SC2	00-3F	0B	50:0C	60:0F	SUB-COLOR HIGHER	TDA8375
1F	AIP	00-7F	3F			ADJUSTMENT IF-PLL	TDA8375
20	VZM	00-3F	19			VERTICAL ZOOM	TDA8375
21	FAW	00-FF	08			NICAM FAW THRESH	MSP3410
22	CTM	00-FF	08			NICAM ERROR BIT (MONO)	MSP3410
23	CTN	00-FF	50			NICAM ERROR BIT (NICAM)	MSP3410
24	WCD	00-FF	0A			DATA CHANGE BEFORE W. G.	MSP3410
25	WST	00-FF	15			MONO → W. G. STEREO	
						DISCONNECTING POINT	MSP3410
26	WTM	00-FF	50			W.G CHANGE TIMER	MSP3410
27	WBT	00-FF	EA			W. B BILINGUAL	
						DISCONNECTING POINT	MSP3410
28	ACG	00-01	01			AGC AUTO/CONSTANT	MSP3410
29	CDB	00-3F	28			AGC GAIN CONSTANT	MSP3410
2A	FGP	00-7F	24			FM (B/G, I, D/K) PRESCALE	MSP3410
2B	FMP	00-7F	40			FM (M) PRESCALE	MSP3410
2C	WGP	00-7F	3C			W. G. PRESCALE	MSP3410
2D	NIP	00-7F	7F			NICAM PRESCALE	MSP3410
2E	CRM	00-01	00			CARRIER MUTE	MSP3410
2F	CML	00-03	00			CARRIER MUTE LEVEL	MSP3410
30	ACO	00-01	01			AUDIO CLOCK OUT	MSP3410
31	WAC	00-01	01			W. G. AGREEMENT COUNT	MSP3410
32	DLY	00-FF	30			STEREO SEARCH DELAY	MSP3410
33	DLG	00-FF	10			INTERVAL OF ID CHECK	MSP3410

Item number	Adjustment Item	Data range	Initial data	Standard data	Note	Device
34	TXP	00-0F	09		TEXT PICTURE	SAA5281
35	MXP	00-0F	0D		TEXT MIX MODE PICTURE	SAA5281
36	BKP	00-3F	00		BLK OFF PICTURE	μ-CON
37	HBL	00-3F	25		H BLK LEFT WIDTH	μ-CON
38	HBR	00-3F	20		H BLK RIGHT WIDTH	μ-CON
39	VBH	00-7F	00		H BLK HIGH WIDTH	μ-CON
3A	VL	00-7F	FF		H BLK LOW WIDTH	μ-CON
3B	ODL	00-FF	10		POWER ON DELAY	μ-CON
3C	OFR	00-0F	00		STBY → ON RGB OUT	μ-CON
3D	OFM	00-0F	00		MAIN POWER RGB OUT	μ-CON
3E	OSH	00-3F	0A		OSD POSITION H	μ-CON
3F	DKS	00-01	01		D/K NICAM	μ-CON
40	MUT	00-01	00		NO SYNC. MUTE	μ-CON
41	DWZ	00-01	01		DIABLE WIDEZOOM	μ-CON
42	ABL	00-01	00		BRIGHT ABL	μ-CON
43	DTV	00-01	00		DISABLE TV SYSTEM KEY	μ-CON
44	SCM	00-01	00		SECAM TRAP ACTIVE	μ-CON
45	ROC	00-0F	07		ROTATION CENTER	μ-CON
46	ROS	00-07	03		ROTATION STEP WIDTH	μ-CON
47	DVM	00-01	00		DISABLE VM MUTE	μ-CON
48	FBT	00-01	01		C/M FOR FBT LAYER SHORT	μ-CON
49	OP0	00-FF	40		OPTION 0	μ-CON
4A	OP1	00-FF	07		OPTION 1	μ-CON
4B	OP2	00-FF	00		OPTION 2	μ-CON

NOTE

- Standard Data: Those are the standard data values written on the microprocessor. Therefore, the data values of the modes are stored respectively in the memory.
In case of a device replacement, adjustment by rewriting the data value is necessary for some items.
- 50 50 Hz data
- 60 60 Hz data
- Standard data listed on the adjustment item table are reference values, therefore it is different for every model.

ITEM INFORMATION

- 10. DL: TV/MIX Mode 0=Interlace 1=interlace, TEXT Mode 0=interlace 1=Interlace
- 42. ABL: Bright ABL ON/OFF ON=1 OFF=0
- 49. OP0 • 4A. OP1 • 4B. OP2
Input data are different according to models.
AV INPUT : 00 → NO MODEL, 01 → MONO, CXA1315, 10/11 → STEREO, TDA8424
TV System : 00 → Multi model, 01 → B/G, 10 → D/K.I, 11 → B/G D/K
NTSC, SECAM, Chin
Shrp : Dynamic Mode @ 1 → Sharpness 50%, 0 → Sharpness 70%.
VM Operation : 0 → OFF, 1 → ON

No. 49 OP0 * Input data are different according to models

Item	—	AV Input		Sharpness 50%	Remote Preset	Auto Program	Video Text	Reserved
KV-J25MN1AK	0	1	1	0	1	1	0	0

No. 4A OP1

Item	—	Tilt	—	TV System		NTSC 3.58	SECAM	Chin
KV-J25MN1AK	0	0	0	0	0	1	1	1

No. 4B OP2

Item	—	Sound Mode	Child Lock	Sound Effect	High Dev.	100 Prg	4.3 Wide	S.Video
KV-J25MN1AK	0	1	1	0	1	1	1	1

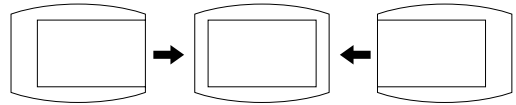
5-3. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons **[5]** and **[0]** (Data Initialize), and **[2]** and **[0]** (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.
In case some items are not well-adjusted, give them fine adjustment.
Write the data per each item number (**[MUTING]** + **[0]**).
4. Select item numbers “49” (OP0), “4A” (OP1) and “4B” (OP2) and respectively set the bit per model with command buttons **[3]** and **[6]**.
5. Press commander buttons **[8]** and **[0]** (Test Normal) to return to the data that was set on the shipment from the factory.
(= Cancel Service Mode.)

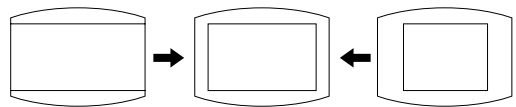
5-4. PICTURE DISTORTION ADJUSTMENT

Item Number 00 – 08

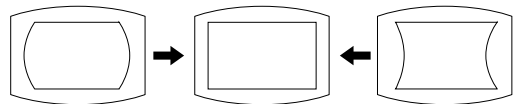
00 HSF (H SHIFT)



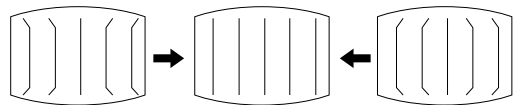
01 HSZ (H SIZE)



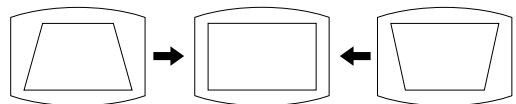
02 PAP (PIN AMPLITUDE)



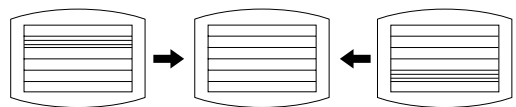
03 CNP (CORNER PIN)



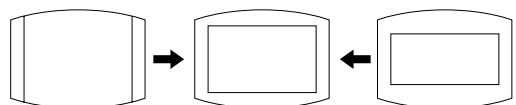
04 TLT (TILT)



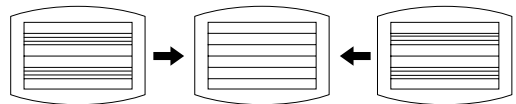
05 VSL (V SLOPE)



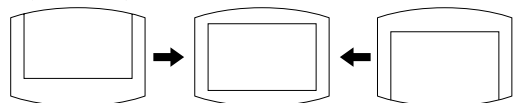
06 VAP (V AMPLITUDE)



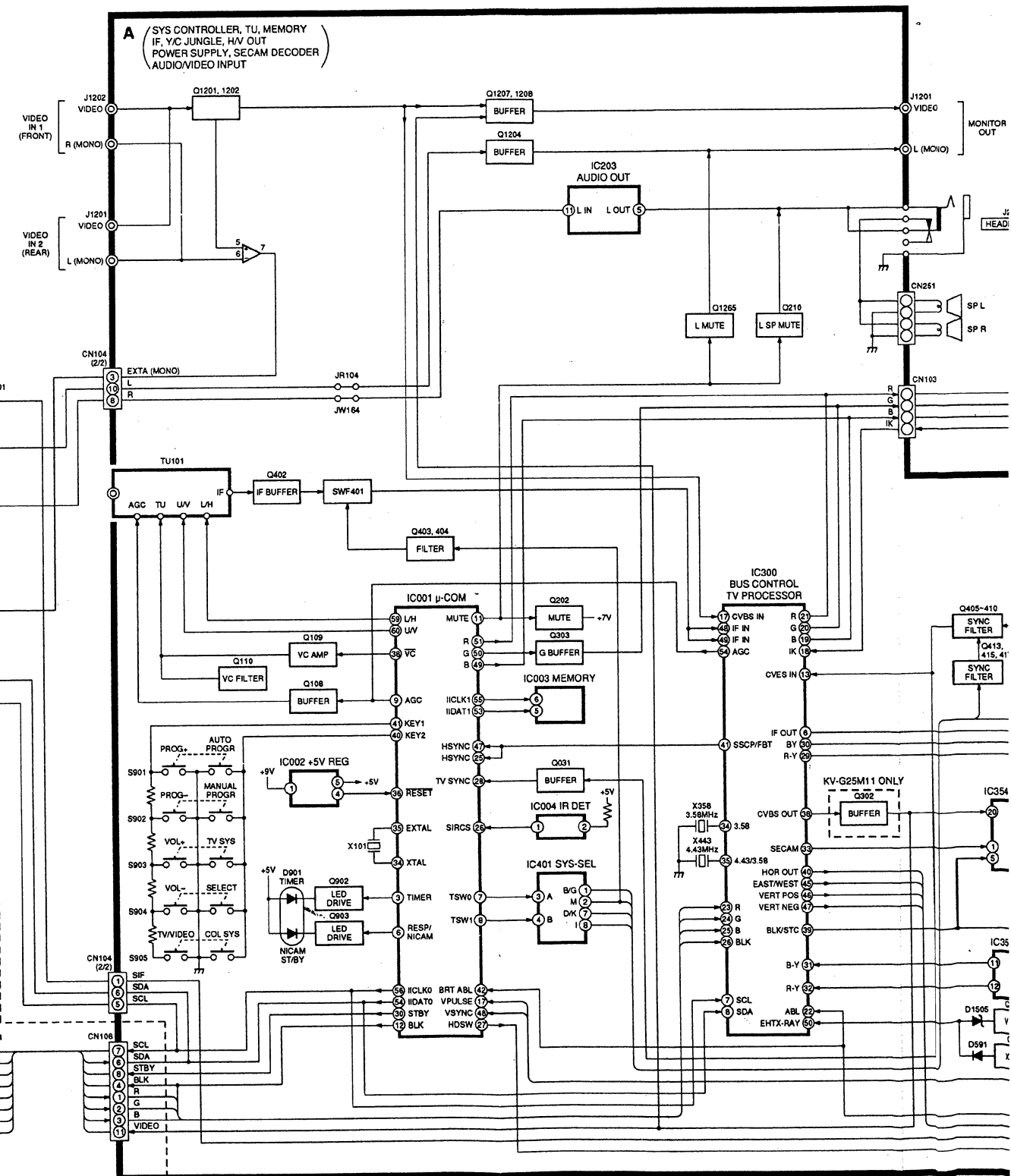
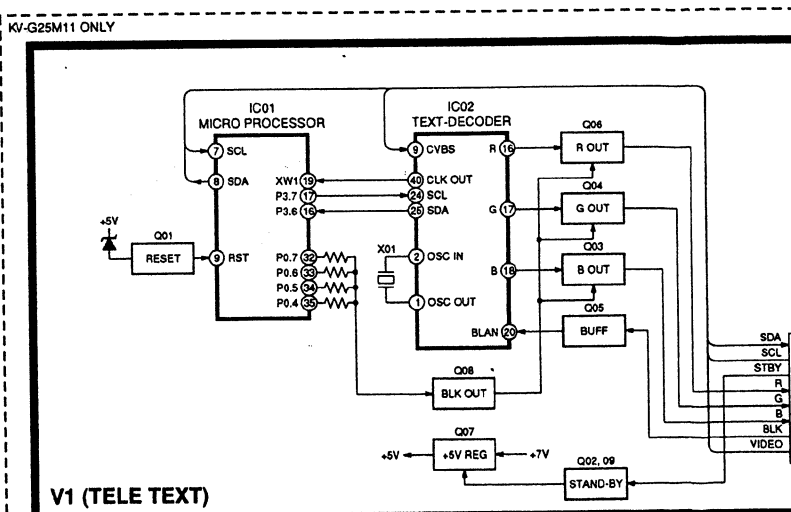
07 SCR (S CORRECTION)

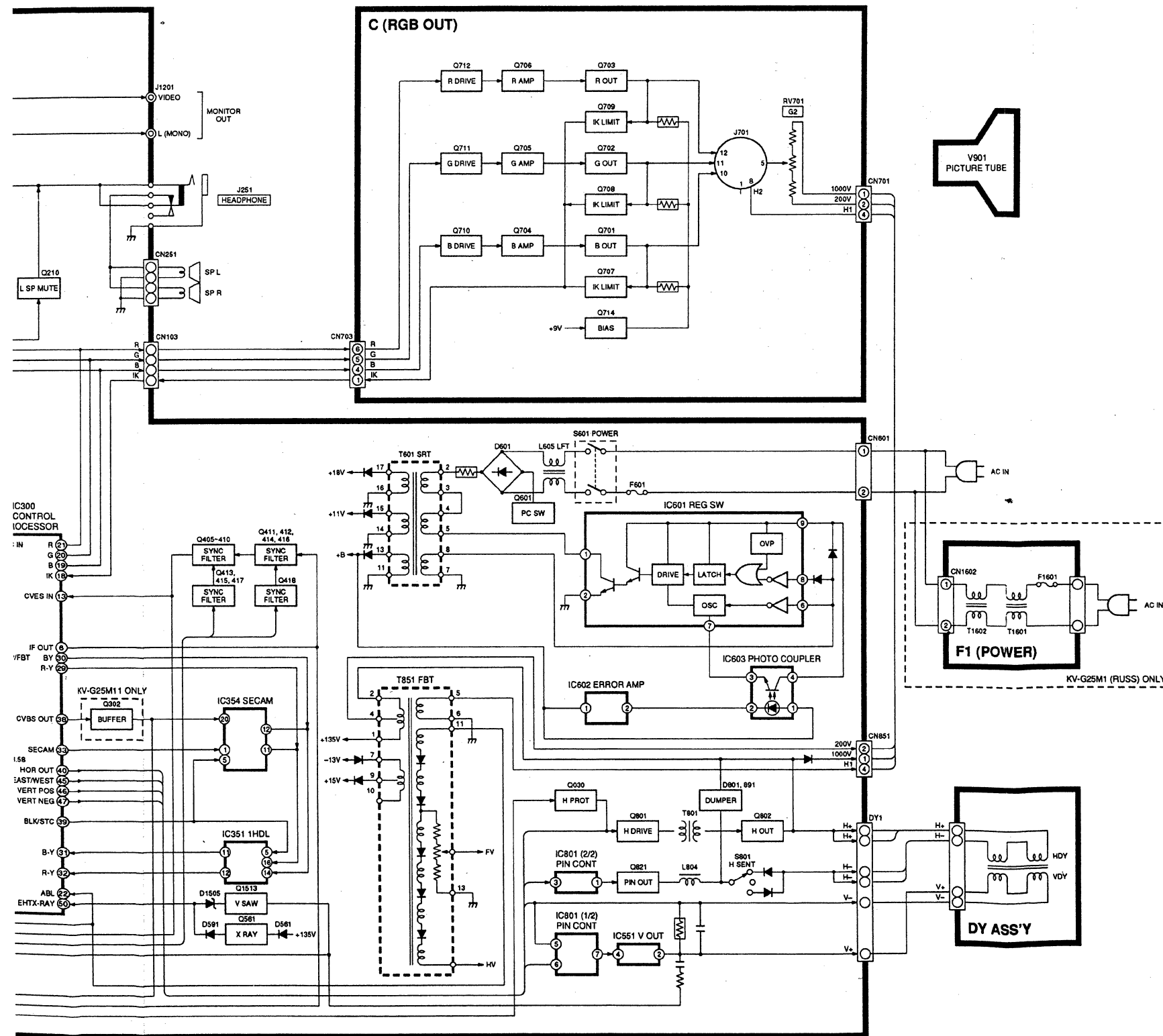


08 VSF (V SHIFT)

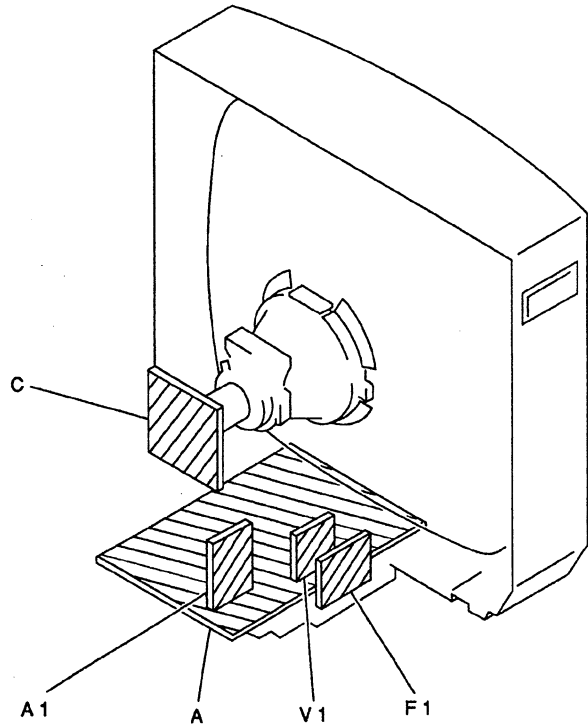


5-1. BLOCK DIAGRAMS





5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
 $\text{k}\Omega = 100\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.
Pitch: 5 mm
Rating electrical power 1/4W (CHIP: 1/10W)
- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.
no mark : PAL
() : SECAM
< > : NTSC 4.43
- Readings are taken with a 10 M Ω digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- * : Can not be measured.
- Circled numbers are waveform reference.
- : B + bus.
- - - : B - bus.
- : signal path.

Reference Information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
	: LF-8L	MICRO INDUCTOR
	: TA	TANTALUM
COIL	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
CAPACITOR	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark are critical for safety. Replace only with part number specified.

PRINTED WIRING BOARD

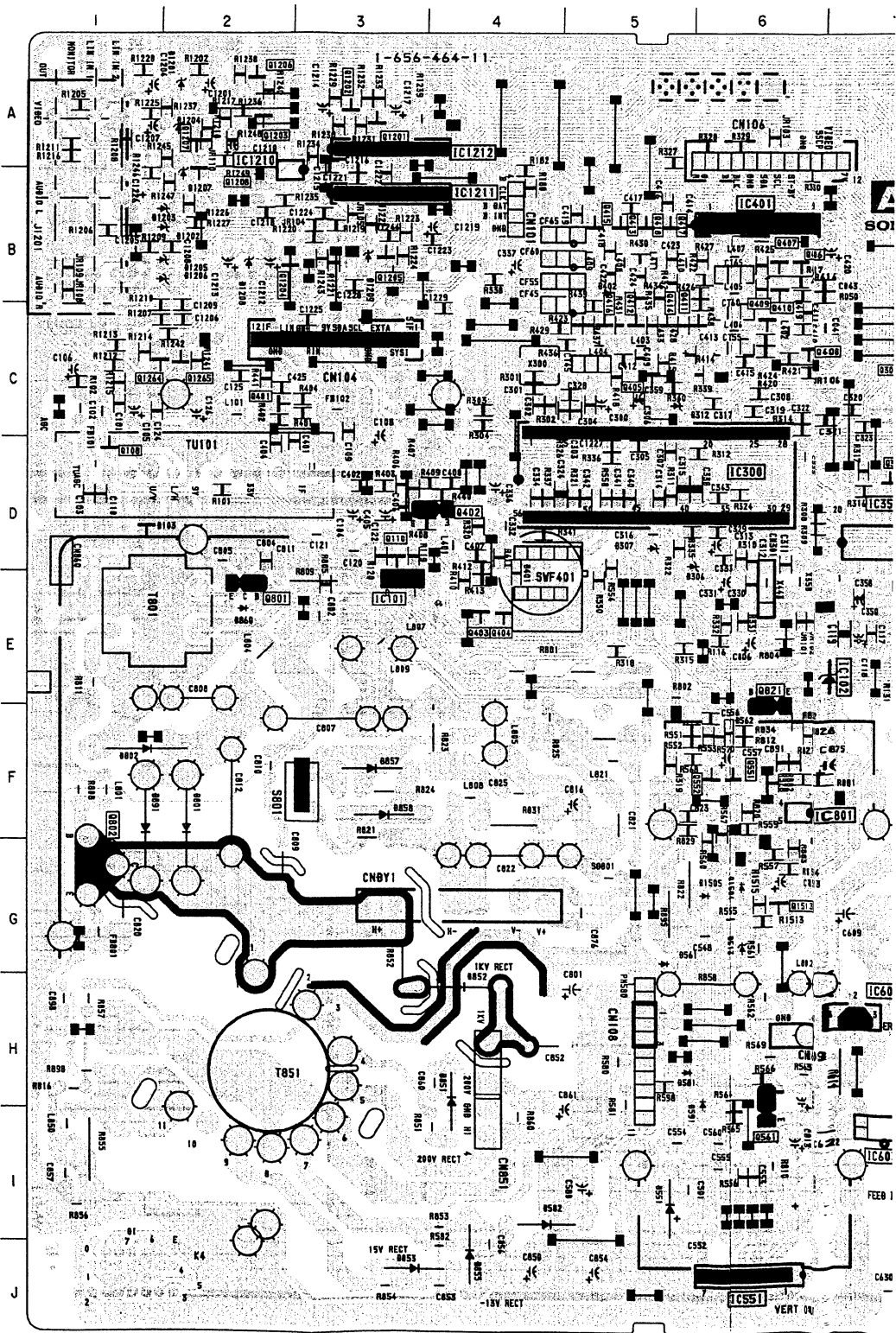
A

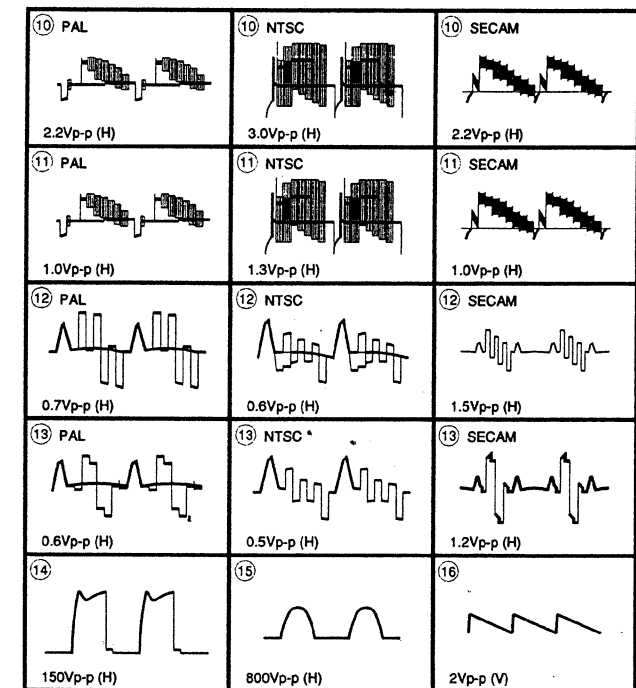
[SYS CONTROLLER, TU, MEMORY, IF, Y/C JUNGLE
H/V OUT, POWER SUPPLY, SECAM DECODER, AUDIO/VIDEO INPUT]

A BOARD

IC		Q1208	B-2
		Q1265	C-2
		Q1513	G-6
		DIODE	
IC001	D-11	D001	D-9
IC002	E-10	D002	C-12
IC003	E-11	D003	C-10
IC004	I-13	D004	E-12
IC102	E-7	D005	E-8
IC203	B-10	D101	B-8
IC300	D-6	D102	B-9
IC351	D-8	D103	D-1
IC354	D-7	D251	B-8
IC401	B-6	D252	B-13
IC521	E-8	D301	C-7
IC551	J-6	D302	D-8
IC601	J-8	D303	D-8
IC602	H-7	D304	C-8
IC603	I-7	D305	D-7
IC801	F-6	D306	D-6
IC1210	A-2	D307	D-5
TRANSISTOR		D308	C-10
Q030	C-12	D310	D-8
Q031	C-8	D311	D-8
Q108	D-1	D312	C-5
Q109	E-12	D313	D-8
Q110	D-3	D314	D-8
Q202	B-8	D351	E-8
Q207	B-10	D401	D-4
Q208	B-10	D402	B-5
Q210	B-9	D403	B-9
Q301	C-7	D513	G-6
Q302	D-7	D551	I-5
Q303	C-8	D561	G-5
Q402	D-4	D591	H-6
Q403	E-4	D601	G-11
Q404	E-4	D602	G-11
Q405	C-5	D603	G-11
Q406	B-6	D604	G-8
Q407	B-6	D605	G-8
Q408	C-6	D606	F-9
Q409	C-6	D607	I-8
Q410	B-6	D609	I-9
Q411	C-6	D610	H-7
Q412	C-5	D611	I-8
Q413	B-5	D801	F-2
Q414	C-5	D802	F-1
Q415	B-5	D851	H-4
Q416	C-5	D852	H-4
Q417	B-5	D853	J-3
Q418	B-5	D855	J-4
Q561	I-6	D857	F-3
Q601	G-12	D858	F-3
Q801	E-2	D860	E-2
Q802	G-1	D891	F-1
Q821	E-6	D901	H-13
Q902	H-13	D1201	A-2
Q903	H-13	D1202	B-2
Q1201	A-3	D1207	B-2
Q1202	A-3	D1208	B-2
Q1203	A-2	D1504	G-6
Q1204	B-2	D1505	G-6
Q1207	A-2		

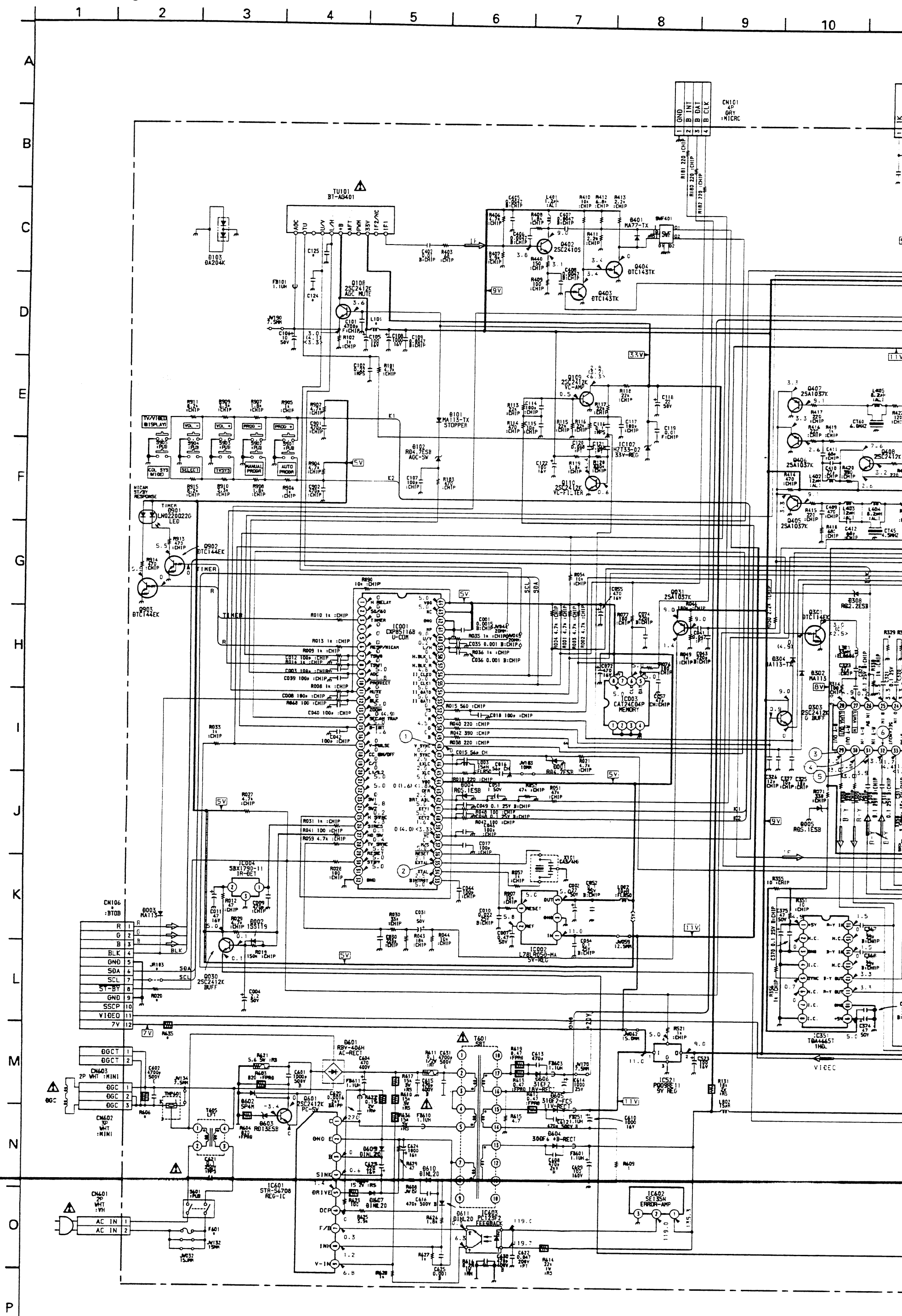
- A Board -





The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

(1) Schematic Diagram of A Board

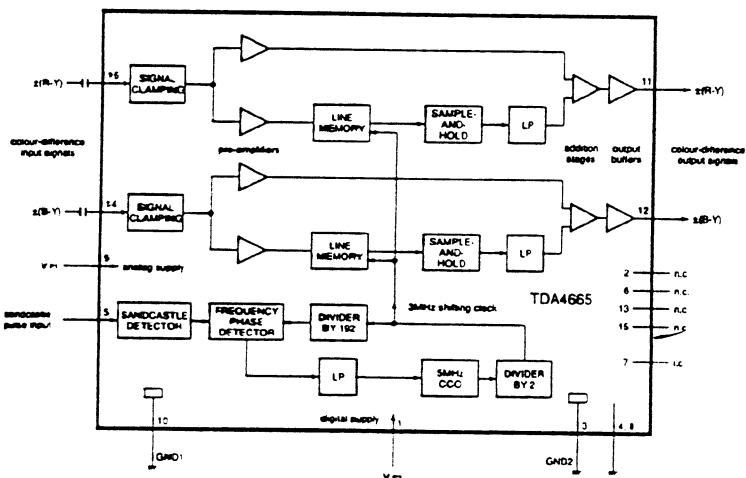




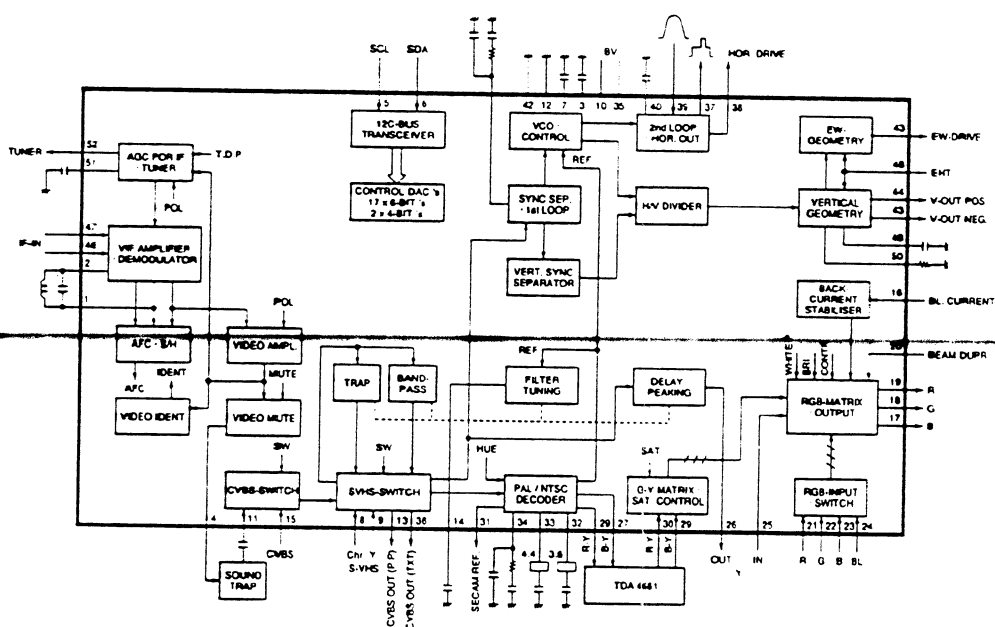
A BOARD * MARK LIST

	KV-G25M1(ME)	KV-G25M1(HK)	KV-G25M1(RUSS)	KV-G25M11
CN106	NOT USED	NOT USED	NOT USED	12P : BTOB
CN601	TO POWER CORD	TO POWER CORD	TO F1 BOARD CN1602	TO POWER CORD
F601	T3.15A	T3.15A	NOT USED	T3.15A
FB801	1.1uH	1.1uH	1.9uH	1.1uH
JR103	NOT USED	NOT USED	NOT USED	0 : CHIP
JW032	NOT USED	NOT USED	15MM	NOT USED
JW132	NOT USED	NOT USED	15MM	NOT USED
Q302	NOT USED	NOT USED	NOT USED	2SC2412K
R020	NOT USED	NOT USED	NOT USED	100 : CHIP
R316	NOT USED	NOT USED	NOT USED	4.7K : CHIP
R317	NOT USED	NOT USED	NOT USED	1K : CHIP
R327	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R328	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R329	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R334	NOT USED	NOT USED	NOT USED	470 : CHIP
R552	NOT USED	NOT USED	220K : CHIP	220K : CHIP
R553	NOT USED	NOT USED	0 : CHIP	0 : CHIP
R570	NOT USED	NOT USED	0 : CHIP	0 : CHIP
R635	NOT USED	NOT USED	NOT USED	22 2W : RS

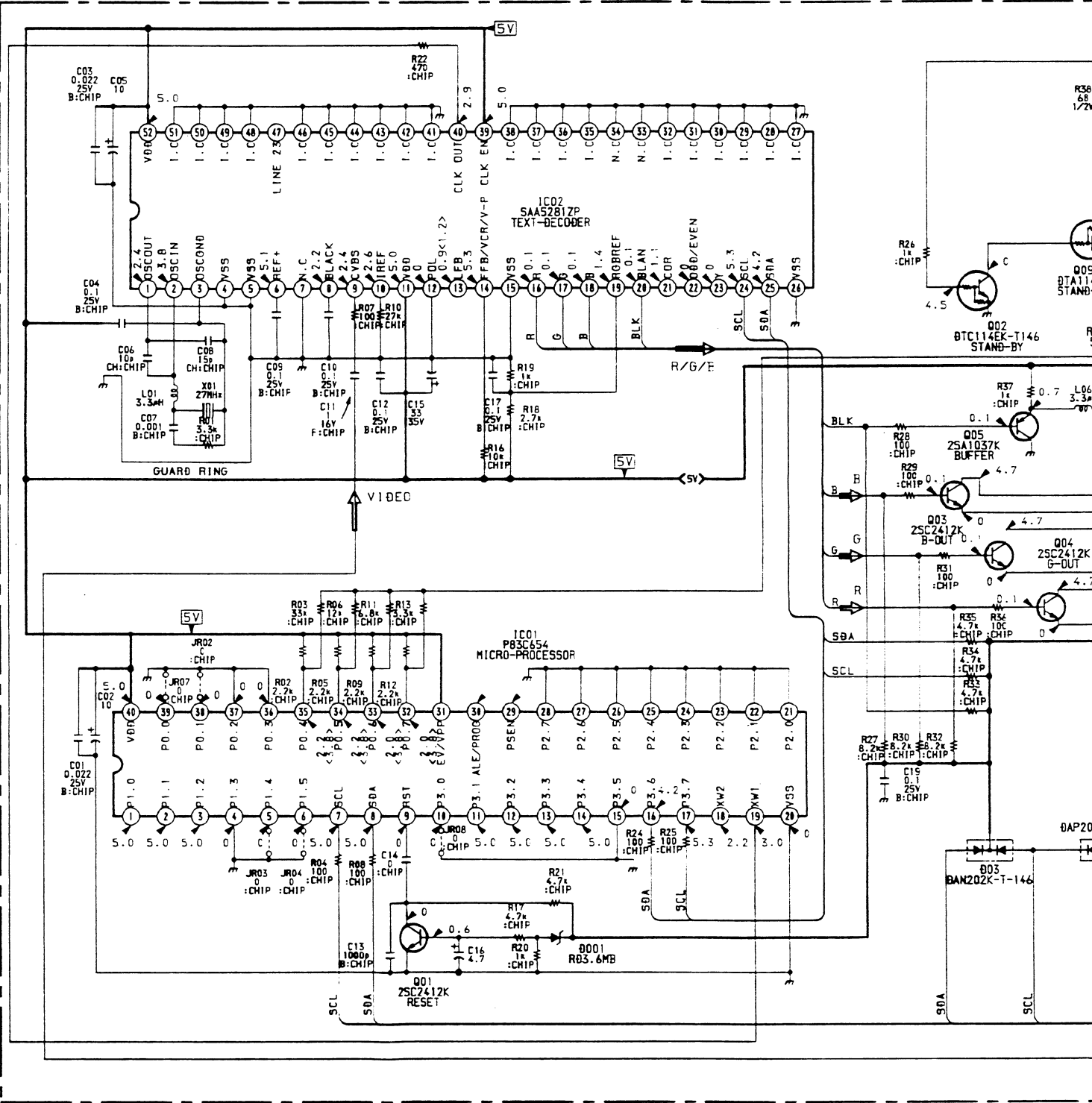
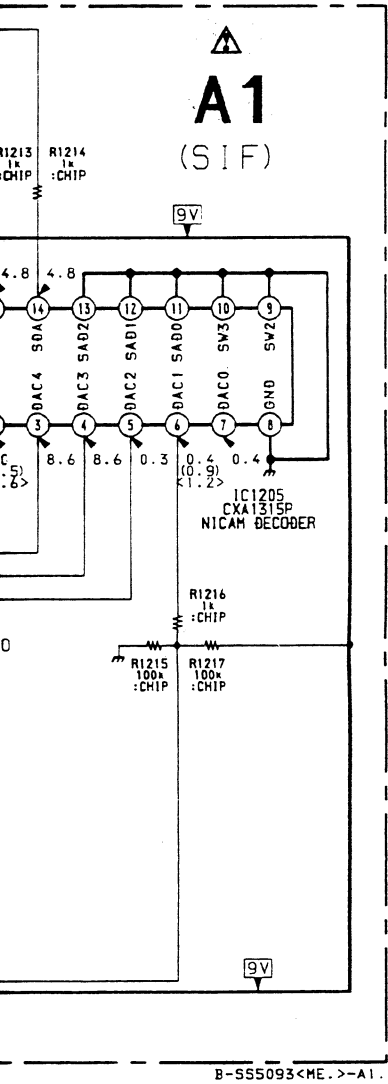
A BOARD IC351 TDA4665T



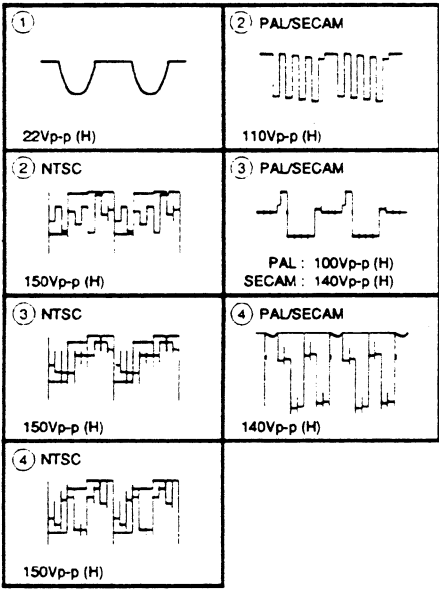
A BOARD IC300 TDA8366N3D



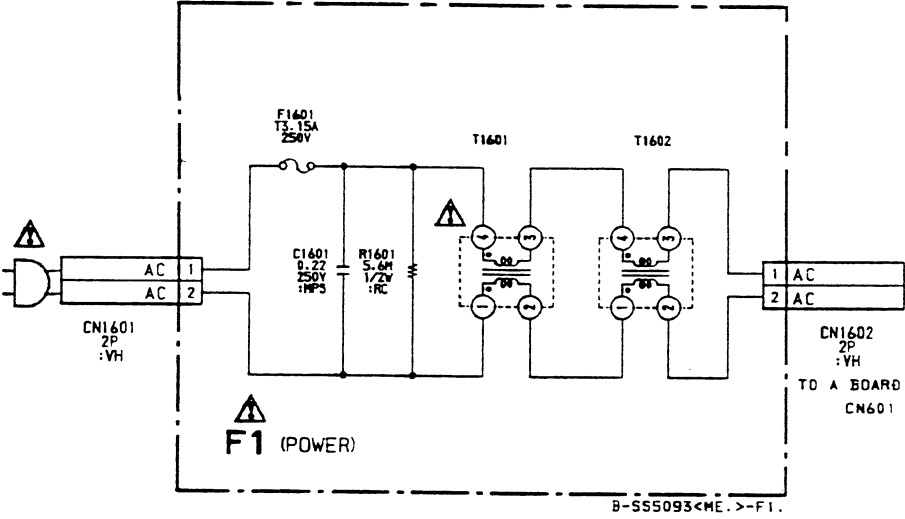
(KV-G25M11 only)



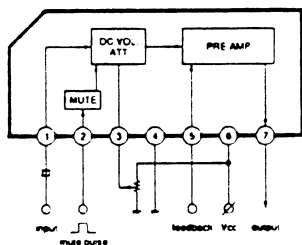
C BOARD WAVEFORMS



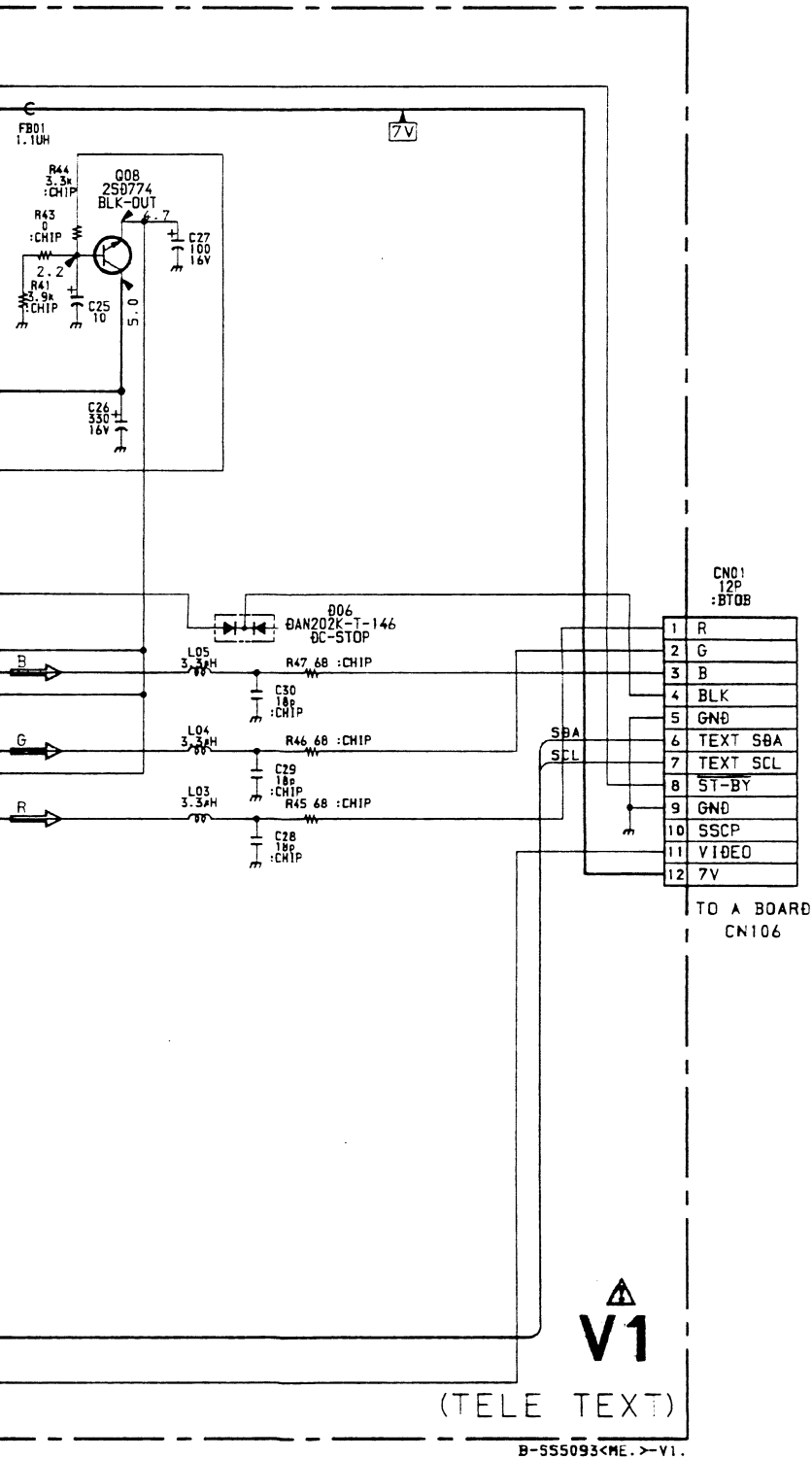
(KV-G25M1 (RUSS) only)



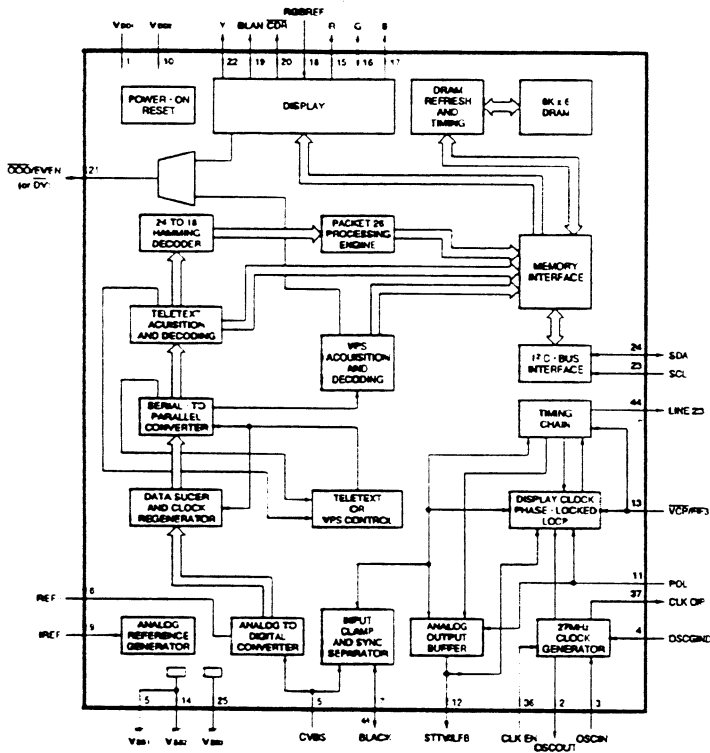
A1 BOARD IC1203 AN5262



- 38 -



V1 BOARD IC02 SAA5281ZP

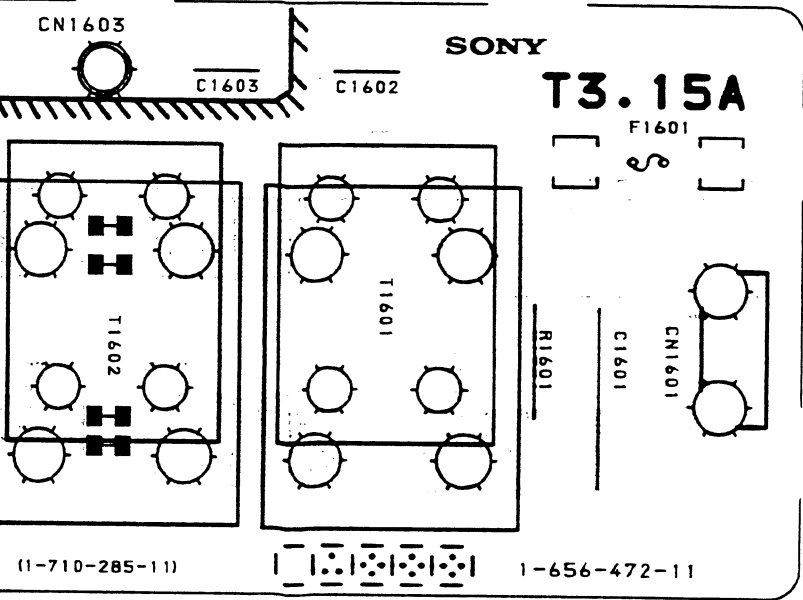


WIRING BOARD

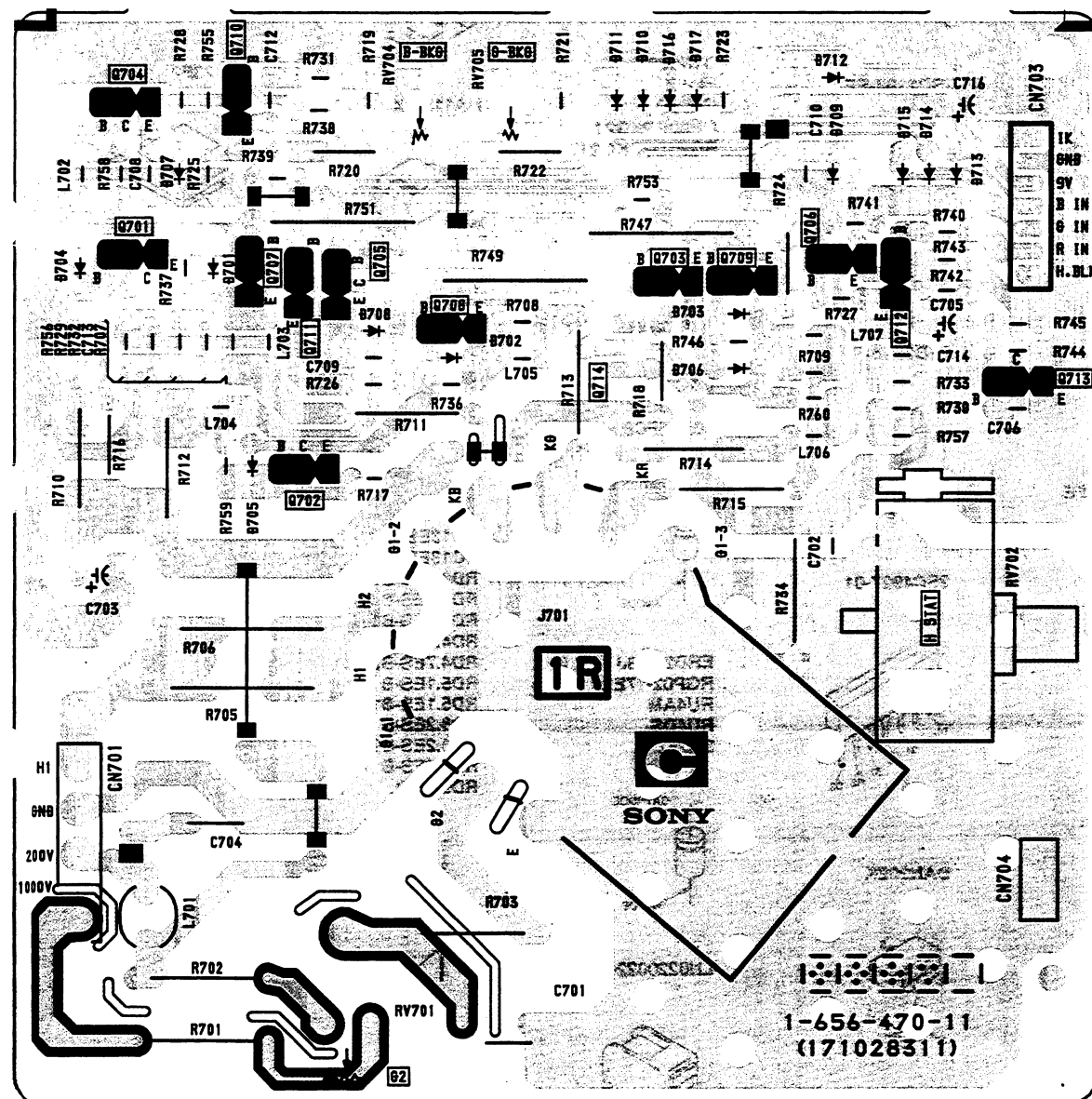
F1

[POWER]

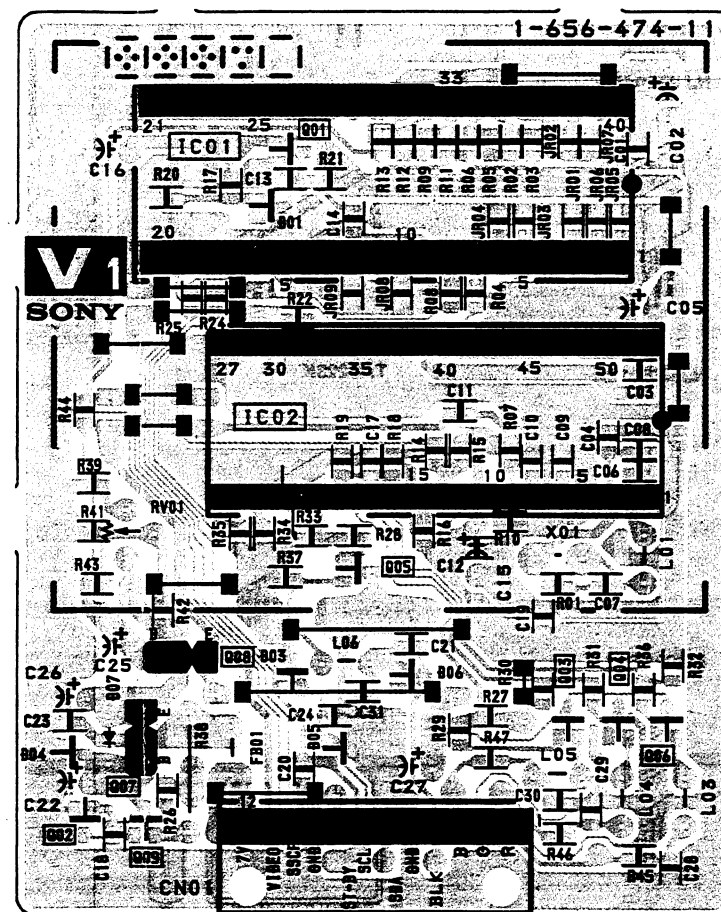
(KV-G25M1 (RUSS) only)



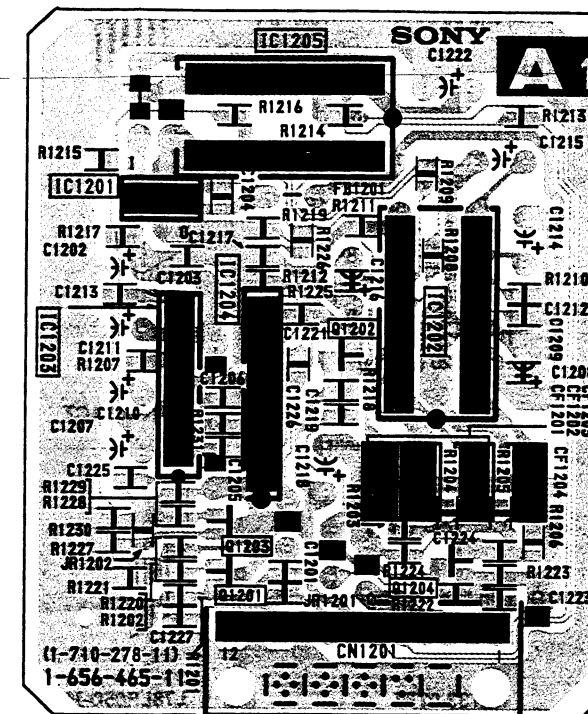
- C Board -



– V1 Board – (KV-G25M11 only)

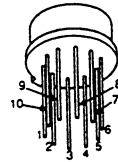


– A1 Board –

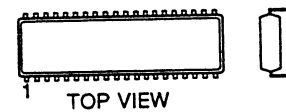


5-4. SEMICONDUCTORS

AN5262

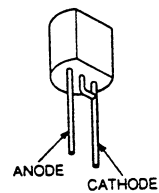


CAT24C04P (8PIN)
CXA1110BS (30PIN)
CXA1315P (16PIN)
CXP85116B-615S (64PIN)
CXP85224A-010S (64PIN)
P83C654 (40PIN)
SAA5281ZP (52PIN)
TDA4665T (16PIN)
TDA8366N3D (56PIN)
TDA8395T (20PIN)
TDA8424 (20PIN)
TDA9820 (16PIN)

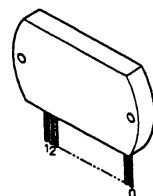


Dual In-line Package
Pin 6 ~ 98

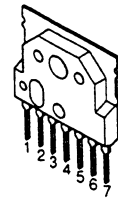
HZT33-02TE
μPC574J



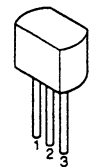
LA7016



LA7830



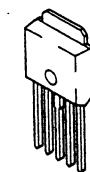
LA7910



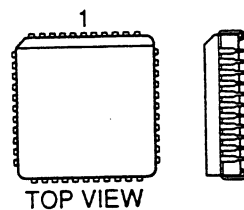
LM78L05ACZ



L78LR05D-MA

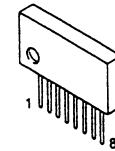


MSP3410 (44PIN)

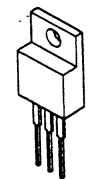


Quad Flat J-leaded Package
Pin 20 ~ 996

NJM2234L



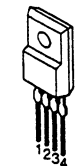
NJM7805FA



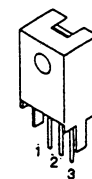
NJM78L12A



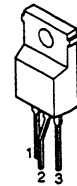
PQ09RE11



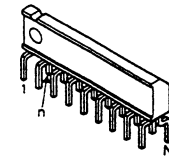
SBX1790-11
SBX1790-51



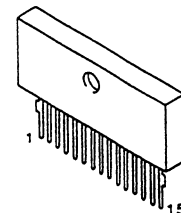
SE-135N



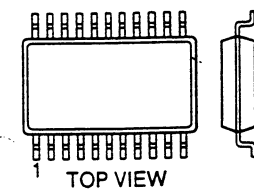
STR-S6708



TA8223K

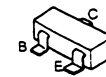


μPC4558G2 (8PIN)



Small Outline L-leaded Package
Pin 8 ~ 98

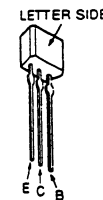
DTA114EK
DTC114EK
DTC143TK
DTC144EK
2SA1037K-QR
2SA1162-G
2SC1623-L5L6
2SC2412K-QR
2SC2712-YG



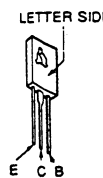
2SA1091
2SA1091-O
2SC2551-O



2SC2410SN
2SC2785-HFE



2SC2611



2SC2669-O



2SC3209LK
2SD774-34



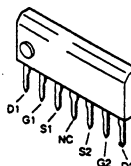
2SD2394-EF



2SD2394-F



2SC4927-01



DAN202K



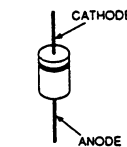
DAP202K



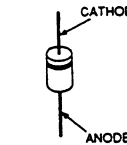
DA204K



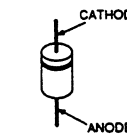
D1NL20
EL-1Z
GP08D
GP08DPKG23
RGP10GPKG23



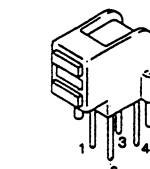
ERC06-15S
S3L20UF4
30DF6FC8



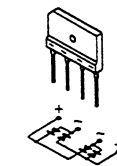
ERD29-08J
RGP02-17EL
RU4AM
RU4DS
31DF2



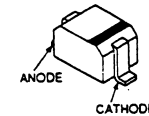
LN0220022G



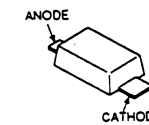
LN4SB60
RBV-406H



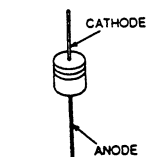
MA113-TX



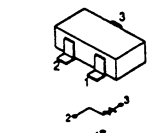
MA77-TX



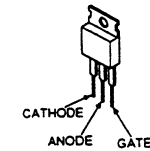
RD13ES-B
RD13ES-B2
RD2.2ES-B
RD3.6ES-B
RD3.6ES-B1
RD4.7ES-B
RD4.7ES-B2
RD5.1ES-B
RD5.1ES-B1
RD8.2ES-B
RD8.2ES-B2
RD9.1ES-B
RD9.1ESL



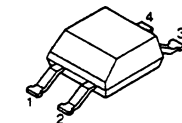
RD3.6M-B
RD3.6M-B1
RD5.6M-B
RD5.6M-B2



5P4M



PC123F2



SECTION 7
EXPLODED VIEW

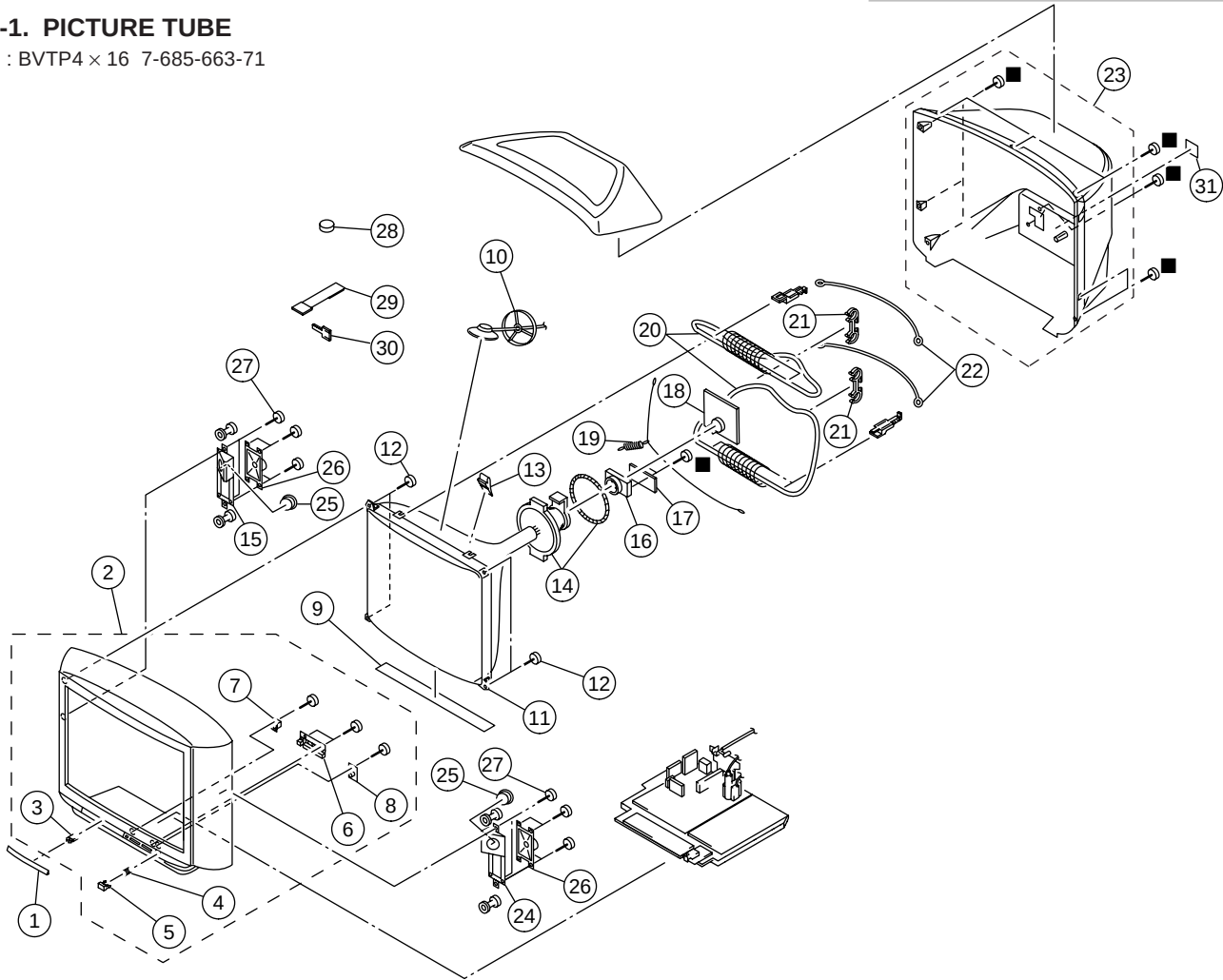
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
 - The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark $\triangle$ are critical for safety.
Replace only with part number specified.

7-1. PICTURE TUBE

■ : BVTP4 × 16 7-685-663-71

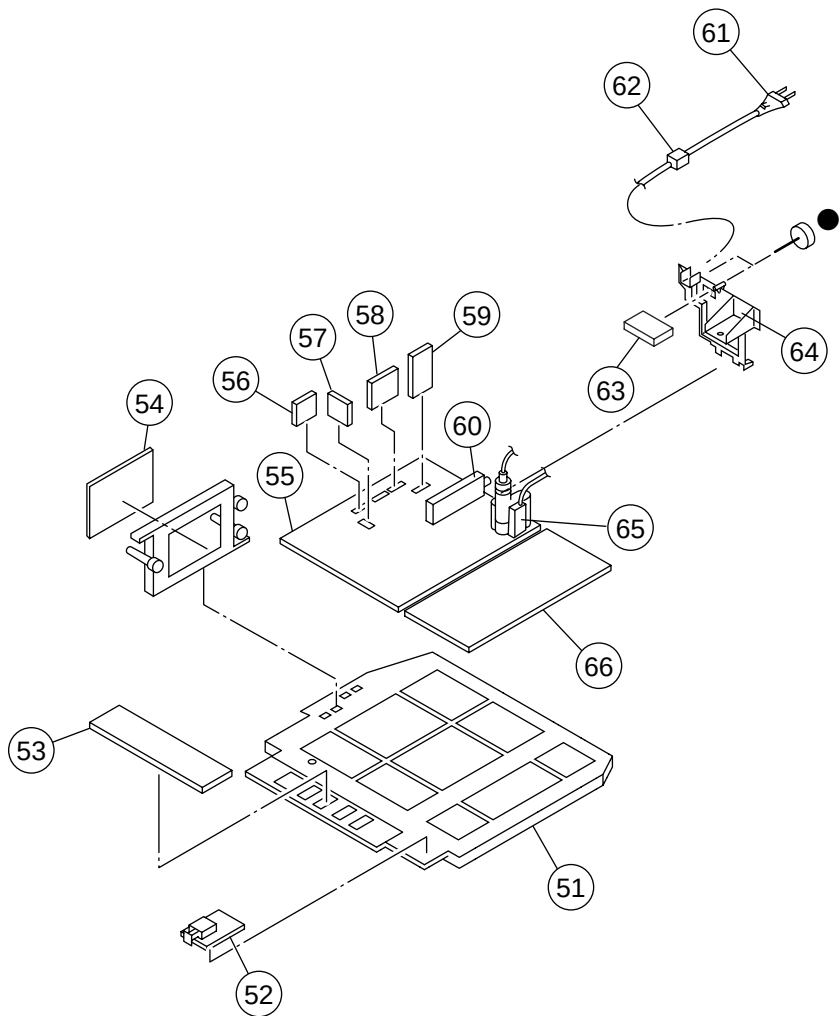


REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-065-931-01	DOOR, CONTROL	
2	X-4035-922-1	BEZNET ASSY	1, 3-8
3	4-047-464-01	CATCHER, PUSH	
4	4-060-390-01	SPRING, COMPRESSION	
5	4-054-486-12	BUTTON, POWER	
6	4-054-487-11	BUTTON, CONTROL	
7	* 4-054-488-01	GUIDE, LIGHT (R)	
8	* 4-054-489-01	GUIDE, LIGHT (LED)	
9	4-054-468-01	SHEET, BLOTING	
10	* 3-704-372-41	HOLDER, HV CABLE	
11	$\triangle$ 8-733-244-05	PICTURE TUBE (M60KWL70X)	
12	4-046-765-01	SCREW, TAPPING 7+CROWN WASHER	
13	4-046-600-11	SPACER, DY	
14	8-451-404-41	DEFLECTION YOKE (Y25GXAS)	
15	* X-4035-970-1	BRACKET (L) ASSY, SP	
16	1-452-762-31	NECK ASSEMBLY NA294	
17	* A-1342-421-A	VM BOARD, COMPLETE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
18	* A-1331-802-A	C BOARD, COMPLETE	
19	4-369-318-71	SPRING, TENSION	
20	$\triangle$ 1-403-619-11	COIL, DEMAGNETIZATION	
21	* 4-042-988-02	HOLDER, DGC	
22	4-043-827-13	BAND, DEGAUSSING COIL	
23	$\triangle$ X-4036-010-1	COVER ASSY, REAR	
24	* X-4035-971-1	BRACKET (R) ASSY, SP	
25	1-505-489-11	SPEAKER (5CM)	
26	1-503-902-11	SPEAKER	
27	4-302-404-03	SCREW (WASHER HEAD) (+P 4X16)	
28	1-452-032-00	MAGNET,DISC	
29	X-4387-214-2	PERMALOY ASSY, CORRECTION	
30	4-034-272-01	PLATE, CORRECTION, TLV	
	4-034-272-41	PLATE, CORRECTION, TLV	
31	4-066-701-01	SHEET (A), BLIND	

7-2. CHASSIS

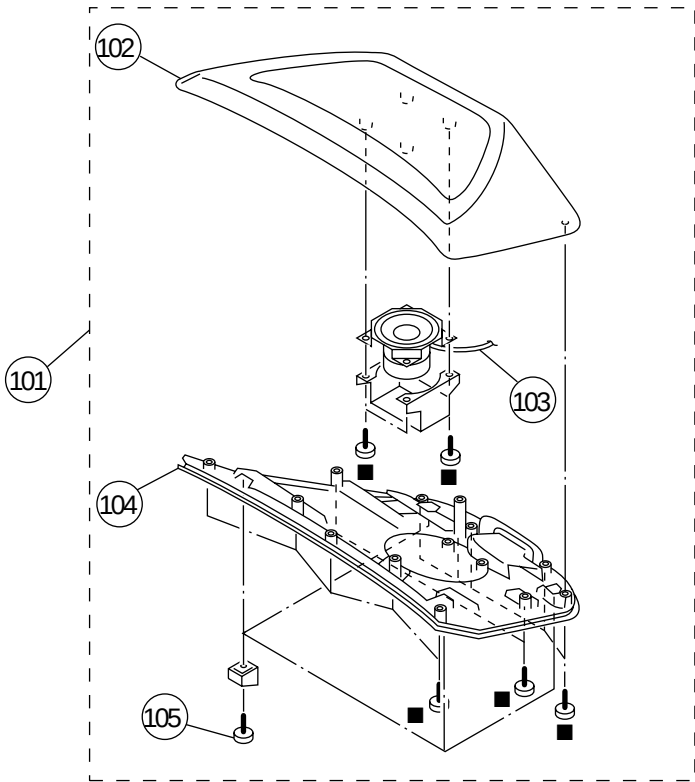
● : BVTP3 × 16 7-685-650-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-065-815-01	BRACKET, MAIN	
52	* A-1241-328-A	F1 BOARD, COMPLETE	
53	* A-1372-527-A	H3 BOARD, COMPLETE	
54	* A-1380-590-A	K BOARD, COMPLETE	
55	* A-1298-662-A	A BOARD, COMPLETE	
56	A-1294-403-A	A4 BOARD, COMPLETE	
57	* A-1294-197-A	A11 BOARD, COMPLETE	
58	* A-1294-331-A	A12 BOARD, COMPLETE	
59	* A-1298-553-A	A3 BOARD, COMPLETE	
60	△ 8-598-323-31	TUNER, VSS BT-AG401	
61	△ 1-782-452-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
62	△ 4-022-115-21	HOLDER, AC CORD	
63	* A-1380-592-A	K1 BOARD, COMPLETE	
64	* 4-065-816-01	BRACKET, TEAMINAL	
65	△ 1-453-190-21	TRANSFORMER ASSY, FLYBACK (NX-2743/M3B)	
66	* A-1241-327-A	F2 BOARD, COMPLETE	

7-3. 3D Speaker

■ : BVTP4 × 16 7-685-663-71



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	A-1501-347-A	BOX ASSY (3D), SPEAKER	
102	4-054-496-01	COVER, TOP	
103	1-900-224-27	LEAD ASSY, SPEAKER	
104	4-054-497-01	COVER, BOTTOM	
105	4-302-428-03	SCREW (WASHER HEAD) (+P 3X12)	
???	7-621-260-65	SCREW +P 2.6X30	
???	7-622-207-05	N 2.6, TYPE 2	
???	7-688-002-11	W 2.6, MIDDLE	
???	7-685-647-79	SCREW (WASHER HEAD) (+P 3X10)	
???	* 4-065-937-01	BAG, PROTECTION	

SECTION 8

ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark $\triangle$ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

RESISTORS

- All resistors are in ohms
- F : nonflammable

CAPACITORS

- MF : μ F, PF : μ PF

COILS

- MMH : μ H, UH : μ H

REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
	* A-1298-662-A	A BOARD, COMPLETE *****				C105	1-125-806-51	ELECT	220MF	20%	16V
						C106	1-125-797-51	ELECT	10MF	20%	50V
	* 1-580-798-11	CONNECTOR PIN (DY) 6P				C108	1-126-767-11	ELECT	1000MF	20%	16V
	* 3-691-950-11	SPACER, P.C.BOARD				C109	1-102-125-00	CERAMIC	0.0047MF	10%	50V
	* 4-367-524-32	CASE, SHIELD (LID UPPER)				C111	1-102-074-00	CERAMIC	0.001MF	10%	50V
	4-382-854-11	SCREW (M3X10), P, SW (+)				C114	1-102-973-00	CERAMIC	100PF	5%	50V
						C115	1-102-947-00	CERAMIC	10PF	0.5PF	50V
		<CAPACITOR>				C116	1-136-165-00	FILM	0.1MF	5%	50V
C001	1-102-119-00	CERAMIC	0.0015MF	10%	50V	C117	1-102-973-00	CERAMIC	100PF	5%	50V
C002	1-126-965-11	ELECT	22MF	20%	50V	C118	1-126-965-11	ELECT	22MF	20%	50V
C003	1-102-973-00	CERAMIC	100PF	5%	50V	C119	1-136-153-00	FILM	0.01MF	5%	50V
C004	1-125-800-51	ELECT	2.2MF	20%	63V	C120	1-130-493-00	MYLAR	0.068MF	5%	50V
C007	1-125-798-51	ELECT	0.47MF	20%	63V	C121	1-130-493-00	MYLAR	0.068MF	5%	50V
C010	1-136-157-00	FILM	0.022MF	5%	50V	C122	1-125-804-51	ELECT	100MF	20%	16V
C012	1-102-973-00	CERAMIC	100PF	5%	50V	C124	1-136-165-00	FILM	0.1MF	5%	50V
C015	1-101-884-00	CERAMIC	56PF	5%	50V	C125	1-136-165-00	FILM	0.1MF	5%	50V
C016	1-101-884-00	CERAMIC	56PF	5%	50V	C131	1-102-973-00	CERAMIC	100PF	5%	50V
C017	1-102-973-00	CERAMIC	100PF	5%	50V	C132	1-102-973-00	CERAMIC	100PF	5%	50V
C018	1-102-973-00	CERAMIC	100PF	5%	50V	C233	1-125-794-51	ELECT	47MF	20%	16V
C021	1-102-074-00	CERAMIC	0.001MF	10%	50V	C234	1-125-794-51	ELECT	47MF	20%	16V
C022	1-102-074-00	CERAMIC	0.001MF	10%	50V	C235	1-125-794-51	ELECT	47MF	20%	16V
C023	1-102-074-00	CERAMIC	0.001MF	10%	50V	C236	1-126-948-11	ELECT	100MF	20%	35V
C024	1-102-074-00	CERAMIC	0.001MF	10%	50V	C237	1-125-804-51	ELECT	100MF	20%	16V
C025	1-102-074-00	CERAMIC	0.001MF	10%	50V	C239	1-125-804-51	ELECT	100MF	20%	16V
C026	1-102-074-00	CERAMIC	0.001MF	10%	50V	C241	1-125-813-51	ELECT	1000MF	20%	25V
C027	1-102-074-00	CERAMIC	0.001MF	10%	50V	C242	1-136-153-00	FILM	0.01MF	5%	50V
C034	1-136-165-00	FILM	0.1MF	5%	50V	C253	1-125-804-51	ELECT	100MF	20%	16V
C042	1-102-973-00	CERAMIC	100PF	5%	50V	C254	1-136-967-11	MYLAR	0.012MF	5%	50V
C044	1-102-973-00	CERAMIC	100PF	5%	50V	C255	1-136-967-11	MYLAR	0.012MF	5%	50V
C046	1-102-973-00	CERAMIC	100PF	5%	50V	C257	1-136-165-00	FILM	0.1MF	5%	50V
C048	1-136-165-00	FILM	0.1MF	5%	50V	C258	1-136-165-00	FILM	0.1MF	5%	50V
C049	1-136-165-00	FILM	0.1MF	5%	50V	C300	1-125-794-51	ELECT	47MF	20%	16V
C050	1-126-960-11	ELECT	1MF	20%	50V	C304	1-136-165-00	FILM	0.1MF	5%	50V
C052	1-136-165-00	FILM	0.1MF	5%	50V	C305	1-136-165-00	FILM	0.1MF	5%	50V
C053	1-102-074-00	CERAMIC	0.001MF	10%	50V	C306	1-136-165-00	FILM	0.1MF	5%	50V
C055	1-126-935-11	ELECT	470MF	20%	16V	C307	1-136-165-00	FILM	0.1MF	5%	50V
C056	1-102-074-00	CERAMIC	0.001MF	10%	50V	C308	1-136-165-00	FILM	0.1MF	5%	50V
C057	1-102-852-91	CERAMIC	47PF	5%	50V	C309	1-136-165-00	FILM	0.1MF	5%	50V
C058	1-102-973-00	CERAMIC	100PF	5%	50V	C310	1-136-165-00	FILM	0.1MF	5%	50V
C059	1-102-973-00	CERAMIC	100PF	5%	50V	C311	1-102-951-00	CERAMIC	15PF	5%	50V
C060	1-102-074-00	CERAMIC	0.001MF	10%	50V	C312	1-102-951-00	CERAMIC	15PF	5%	50V
C061	1-125-800-51	ELECT	2.2MF	20%	63V	C313	1-125-804-51	ELECT	100MF	20%	16V
C072	1-126-935-11	ELECT	470MF	20%	16V	C314	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C074	1-102-110-00	CERAMIC	220PF	10%	50V	C315	1-126-960-11	ELECT	1MF	20%	50V
C101	1-101-003-00	CERAMIC	0.0047MF		50V	C316	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C102	1-136-165-00	FILM	0.1MF	5%	50V	C319	1-136-165-00	FILM	0.1MF	5%	50V
						C320	1-136-165-00	FILM	0.1MF	5%	50V



REF. NO.	PART NO.	DESCRIPTION	REMARK			
C321	1-136-165-00	FILM	0.1MF	5%	50V	
C323	1-102-852-91	CERAMIC	47PF	5%	50V	
C324	1-125-800-51	ELECT	2.2MF	20%	63V	
C326	1-102-949-00	CERAMIC	12PF	5%	50V	
C328	1-136-165-00	FILM	0.1MF	5%	50V	
C329	1-130-478-00	MYLAR	0.0039MF	5%	50V	
C330	1-136-165-00	FILM	0.1MF	5%	50V	
C331	1-125-797-51	ELECT	10MF	20%	50V	
C332	1-136-165-00	FILM	0.1MF	5%	50V	
C333	1-136-165-00	FILM	0.1MF	5%	50V	
C335	1-102-973-00	CERAMIC	100PF	5%	50V	
C336	1-125-797-51	ELECT	10MF	20%	50V	
C337	1-125-804-51	ELECT	100MF	20%	16V	
C339	1-101-361-00	CERAMIC	150PF	5%	50V	
C340	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C341	1-102-973-00	CERAMIC	100PF	5%	50V	
C342	1-136-165-00	FILM	0.1MF	5%	50V	
C344	1-126-963-11	ELECT	4.7MF	20%	50V	
C349	1-126-965-11	ELECT	22MF	20%	50V	
C350	1-125-794-51	ELECT	47MF	20%	16V	
C351	1-136-165-00	FILM	0.1MF	5%	50V	
C352	1-136-169-00	FILM	0.22MF	5%	50V	
C358	1-136-165-00	FILM	0.1MF	5%	50V	
C359	1-125-804-51	ELECT	100MF	20%	16V	
C361	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C362	1-102-959-00	CERAMIC	22PF	5%	50V	
C367	1-136-165-00	FILM	0.1MF	5%	50V	
C368	1-136-165-00	FILM	0.1MF	5%	50V	
C369	1-136-165-00	FILM	0.1MF	5%	50V	
C370	1-136-165-00	FILM	0.1MF	5%	50V	
C374	1-126-967-11	ELECT	47MF	20%	50V	
C375	1-126-967-11	ELECT	47MF	20%	50V	
C401	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C402	1-136-153-00	FILM	0.01MF	5%	50V	
C403	1-126-965-11	ELECT	22MF	20%	50V	
C404	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C405	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C406	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C407	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C408	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C409	1-101-880-00	CERAMIC	47PF	5%	50V	
C410	1-102-961-00	CERAMIC	27PF	5%	50V	
C411	1-101-888-00	CERAMIC	68PF	5%	50V	
C412	1-101-888-00	CERAMIC	68PF	5%	50V	
C413	1-125-804-51	ELECT	100MF	20%	16V	
C416	1-102-973-00	CERAMIC	100PF	5%	50V	
C419	1-102-973-00	CERAMIC	100PF	5%	50V	
C420	1-125-794-51	ELECT	47MF	20%	16V	
C422	1-102-820-00	CERAMIC	330PF	5%	50V	
C424	1-102-824-00	CERAMIC	470PF	5%	50V	
C425	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C501	1-102-228-00	CERAMIC	470PF	10%	500V	
C523	1-126-933-11	ELECT	100MF	20%	16V	
C548	1-106-220-00	MYLAR	0.1MF	10%	100V	
C551	1-126-948-11	ELECT	100MF	20%	35V	
C552	1-126-948-11	ELECT	100MF	20%	35V	
C553	1-102-127-00	CERAMIC	0.0068MF	10%	50V	
C554	1-102-244-00	CERAMIC	220PF	10%	500V	

REF. NO.	PART NO.	DESCRIPTION	REMARK			
C555	1-101-804-00	CERAMIC	10PF	5%	500V	
C562	1-126-933-11	ELECT	100MF	20%	16V	
C801	1-123-024-21	ELECT	33MF		160V	
C802	1-107-364-11	MYLAR	0.01MF	10%	200V	
C804	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C805	1-102-244-00	CERAMIC	220PF	10%	500V	
C806	1-126-960-11	ELECT	1MF	20%	50V	
C807	1-136-540-11	FILM	0.82MF	5%	200V	
C808	1-130-959-00	FILM	0.047MF	10%	400V	
C809	1-162-115-00	CERAMIC	330PF	10%	2KV	
C810	1-106-365-00	MYLAR	0.0082MF	99%	200V	
C811	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C812	1-136-086-00	FILM	0.017MF	3%	2KV	
C816	1-107-636-11	ELECT	10MF	20%	160V	
C820	1-161-754-00	CERAMIC	0.001MF	10%	2KV	
C821	1-104-999-11	MYLAR	0.1MF	10%	200V	
C822	1-136-541-11	FILM	1.5MF	5%	200V	
C823	1-136-153-00	FILM	0.01MF	5%	50V	
C825	1-107-364-11	MYLAR	0.01MF	10%	200V	
C850	1-126-941-11	ELECT	470MF	20%	25V	
C852	1-104-574-11	CERAMIC	0.0047MF	10%	2KV	
C853	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C854	1-126-941-11	ELECT	470MF	20%	25V	
C856	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C857	1-136-165-00	FILM	0.1MF	5%	50V	
C860	1-102-228-00	CERAMIC	470PF	10%	500V	
C861	1-107-654-11	ELECT	33MF	20%	250V	
C875	1-128-562-11	ELECT	47MF	20%	100V	
C876	1-107-369-11	MYLAR	0.068MF	10%	100V	
C891	1-102-116-00	CERAMIC	680PF	10%	50V	
C898	1-136-163-00	FILM	0.068MF	5%	50V	
C901	1-102-824-00	CERAMIC	470PF	5%	50V	
C902	1-102-824-00	CERAMIC	470PF	5%	50V	
C1201	1-125-804-51	ELECT	100MF	20%	16V	
C1202	1-136-165-00	FILM	0.1MF	5%	50V	
C1203	1-136-165-00	FILM	0.1MF	5%	50V	
C1204	1-125-804-51	ELECT	100MF	20%	16V	
C1205	1-136-165-00	FILM	0.1MF	5%	50V	
C1206	1-136-165-00	FILM	0.1MF	5%	50V	
C1207	1-125-804-51	ELECT	100MF	20%	16V	
C1208	1-137-194-51	FILM	0.47MF	5%	50V	
C1209	1-137-194-51	FILM	0.47MF	5%	50V	
C1210	1-125-804-51	ELECT	100MF	20%	16V	
C1213	1-126-960-11	ELECT	1MF	20%	50V	
C1214	1-125-797-51	ELECT	10MF	20%	50V	
C1215	1-102-976-00	CERAMIC	180PF	5%	50V	
C1216	1-137-194-51	FILM	0.47MF	5%	50V	
C1217	1-125-804-51	ELECT	100MF	20%	16V	
C1218	1-102-976-00	CERAMIC	180PF	5%	50V	
C1221	1-137-194-51	FILM	0.47MF	5%	50V	
C1226	1-125-806-51	ELECT	220MF	20%	16V	
C1227	1-136-165-00	FILM	0.1MF	5%	50V	
C1281	1-126-963-11	ELECT	4.7MF	20%	50V	
C1282	1-130-492-11	MYLAR	0.056MF	5%	50V	
C1283	1-125-798-51	ELECT	0.47MF	20%	63V	
C1513	1-126-968-11	ELECT	100MF	20%	50V	
C5907	1-137-188-51	FILM	0.15MF	5%	50V	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C5908	1-137-188-51	FILM 0.15MF 5% 50V		D306	8-719-911-19	DIODE 1SS119-25	
		<FILTER>		D307	8-719-911-19	DIODE 1SS119-25	
CF45	1-767-220-11	FILTER, CERAMIC		D308	8-719-109-54	DIODE RD2.2ESB2	
CF60	1-567-100-00	FILTER, CERAMIC		D310	8-719-911-19	DIODE 1SS119-25	
CF65	1-567-101-11	FILTER, CERAMIC		D311	8-719-109-68	DIODE RD3.6ESB1	
		<CONNECTOR>		D312	8-719-110-08	DIODE RD8.2ESB2	
CN001 *	1-564-506-11	PLUG, CONNECTOR 3P		D315	8-719-121-26	DIODE RD9.1ESL2	
CN002	1-564-506-11	PLUG, CONNECTOR 3P		D351	8-719-908-03	DIODE GP08D	
CN003 *	1-564-509-11	PLUG, CONNECTOR 6P		D399	8-719-121-26	DIODE RD9.1ESL2	
CN101 *	1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P		D401	8-719-911-19	DIODE 1SS119-25	
CN102 *	1-564-508-11	PLUG, CONNECTOR 5P		D402	8-719-911-19	DIODE 1SS119-25	
CN111 *	1-564-505-11	PLUG, CONNECTOR 2P		D403	8-719-911-19	DIODE 1SS119-25	
CN252 *	1-564-507-11	PLUG, CONNECTOR 4P		D513	8-719-109-84	DIODE RD5.1ESB1	
CN604 *	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D551	8-719-908-03	DIODE GP08D	
CN605 *	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		D561	8-719-911-19	DIODE 1SS119-25	
CN608 *	1-564-506-11	PLUG, CONNECTOR 3P		D591	8-719-911-19	DIODE 1SS119-25	
CN609	1-564-506-11	PLUG, CONNECTOR 3P		D801	8-719-945-80	DIODE ERC06-15S	
CN811	1-695-915-11	TAB (CONTACT)		D802	8-719-900-26	DIODE ERD29-08J	
CN812	1-695-915-11	TAB (CONTACT)		D851	8-719-302-43	DIODE EL1Z	
CN813	1-695-915-11	TAB (CONTACT)		D852	8-719-028-72	DIODE RGP02-17EL-6433	
CN816	1-695-915-11	TAB (CONTACT)		D853	8-719-302-43	DIODE EL1Z	
CN817	1-695-915-11	TAB (CONTACT)		D855	8-719-302-43	DIODE EL1Z	
CN818	1-695-915-11	TAB (CONTACT)		D857	8-719-908-03	DIODE GP08D	
CN851	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D858	8-719-908-03	DIODE GP08D	
CN1202	1-564-511-11	PLUG, CONNECTOR 8P		D860	8-719-911-19	DIODE 1SS119-25	
CN1203*	1-564-509-21	PLUG, CONNECTOR 6P		D891	8-719-945-80	DIODE ERC06-15S	
		<COMPOSITION CIRCUIT BLOCK>		D1201	8-719-121-26	DIODE RD9.1ESL2	
CP001	1-233-747-11	CIRCUIT BLOCK, COMPOSITION		D1202	8-719-121-26	DIODE RD9.1ESL2	
CP002	1-233-749-11	CIRCUIT BLOCK, COMPOSITION		D1203	8-719-121-26	DIODE RD9.1ESL2	
CP003	1-233-748-11	CIRCUIT BLOCK, COMPOSITION		D1204	8-719-121-26	DIODE RD9.1ESL2	
CP004	1-233-750-11	CIRCUIT BLOCK, COMPOSITION		D1205	8-719-121-26	DIODE RD9.1ESL2	
CP005	1-233-749-11	CIRCUIT BLOCK, COMPOSITION		D1206	8-719-121-26	DIODE RD9.1ESL2	
		<TRIMMER>		D1207	8-719-121-26	DIODE RD9.1ESL2	
CT45	1-579-690-11	TRAP, CERAMIC		D1504	8-719-911-19	DIODE 1SS119-25	
CT60	1-409-429-11	TRAP, CERAMIC		D1505	8-719-109-81	DIODE RD4.7ESB2	
CT65	1-409-327-00	TRAP, CERAMIC (6.5MHZ)				<FERRITE BEAD>	
		<DIODE>		FB101	1-410-397-21	FERRITE 1.1UH	
D001	8-719-109-81	DIODE RD4.7ESB2		FB102	1-410-397-21	FERRITE 1.1UH	
D002	8-719-911-19	DIODE 1SS119-25		FB251	1-410-397-21	FERRITE 1.1UH	
D003	8-719-911-19	DIODE 1SS119-25		FB601	1-410-397-21	FERRITE 1.1UH	
D005	8-719-109-84	DIODE RD5.1ESB1		FB603	1-410-397-21	FERRITE 1.1UH	
D008	8-719-109-89	DIODE RD5.6ESB2		FB801	1-410-397-21	FERRITE 1.1UH	
D103	8-719-016-42	DIODE MC932				<IC>	
D251	8-719-911-19	DIODE 1SS119-25		IC001	8-752-899-79	IC CXP85224A-070S	
D252	8-719-016-42	DIODE MC932		IC002	8-759-805-37	IC L78LR05D-MA	
D301	8-719-911-19	DIODE 1SS119-25		IC003	8-759-370-34	IC ST24C08FB6	
D305	8-719-911-19	DIODE 1SS119-25		IC102	8-759-157-40	IC UPC574J	
				IC203	8-759-336-30	IC TA8223K	
				IC300	8-759-365-26	IC TDA8375A	
				IC351	8-759-565-19	IC TDA4665T/V5-112	
				IC354	8-759-251-56	IC TDA8395T	
				IC521	8-759-195-63	IC PQ09RE11	
				IC551	8-759-801-98	IC LA7830	



REF. NO.	PART NO.	DESCRIPTION	REMARK
IC801	8-759-145-58	IC UPC4558C	
IC1203	8-759-701-75	IC NJM7805FA	
IC1210	8-759-145-58	IC UPC4558C	
		<JACK>	
J1201	1-770-659-11	JACK BLOCK, PIN 9P	
		<COIL>	
L001	1-408-397-00	INDUCTOR 1UH	
L002	1-410-509-51	INDUCTOR 10UH	
L003	1-408-605-31	INDUCTOR 15UH	
L101	1-410-470-11	INDUCTOR 10UH	
L301	1-408-598-31	INDUCTOR 3.9UH	
L401	1-410-498-11	INDUCTOR 1.2UH	
L402	1-410-510-11	INDUCTOR 12UH	
L403	1-410-510-11	INDUCTOR 12UH	
L404	1-410-508-11	INDUCTOR 8.2UH	
L405	1-410-508-11	INDUCTOR 8.2UH	
L406	1-410-507-11	INDUCTOR 6.8UH	
L407	1-410-511-11	INDUCTOR 15UH	
L408	1-410-500-11	INDUCTOR 1.8UH	
L409	1-410-501-51	INDUCTOR 2.2UH	
L411	1-410-502-11	INDUCTOR 2.7UH	
L802	1-412-527-11	INDUCTOR 15UH	
L804	1-459-075-00	INDUCTOR 0UH	
L805	1-459-907-11	COIL, HORIZONTAL LINEARITY	
L807	1-459-390-00	INDUCTOR 0UH	
L808	1-412-553-11	INDUCTOR 3.3MMH	
L821	1-459-111-00	INDUCTOR 0UH	
L850	1-408-947-00	INDUCTOR 2.2MMH	
		<TRANSISTOR>	
Q030	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q109	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q110	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q207	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q208	8-729-030-02	TRANSISTOR DTC144ESA	
Q209	8-729-029-92	TRANSISTOR DTC143ESA	
Q210	8-729-029-92	TRANSISTOR DTC143ESA	
Q301	8-729-029-66	TRANSISTOR DTC114ESA	
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q402	8-729-922-66	TRANSISTOR 2SC2410SN	
Q403	8-729-029-92	TRANSISTOR DTC143ESA	
Q404	8-729-029-92	TRANSISTOR DTC143ESA	
Q405	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q406	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q407	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q409	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q412	8-729-119-78	TRANSISTOR 2SC2785-HFE	

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q414	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q415	8-729-029-92	TRANSISTOR DTC143ESA	
Q416	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q417	8-729-029-92	TRANSISTOR DTC143ESA	
Q418	8-729-029-92	TRANSISTOR DTC143ESA	
Q561	8-729-200-17	TRANSISTOR 2SA1091-R	
Q801	8-729-140-50	TRANSISTOR 2SC3209LK	
Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
Q821	8-729-018-99	TRANSISTOR 2SD2394-F	
Q1201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1204	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1207	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1208	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1264	8-729-029-92	TRANSISTOR DTC143ESA	
Q1265	8-729-029-92	TRANSISTOR DTC143ESA	
Q1281	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1282	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1283	8-729-030-02	TRANSISTOR DTC144ESA	
Q1513	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
R007	1-247-855-31	CARBON 10K	5% 1/4W
R008	1-220-958-81	METAL 1K	5% 1/2W
R009	1-220-958-81	METAL 1K	5% 1/2W
R010	1-220-958-81	METAL 1K	5% 1/2W
R013	1-220-958-81	METAL 1K	5% 1/2W
R014	1-220-958-81	METAL 1K	5% 1/2W
R015	1-247-825-31	CARBON 560	5% 1/4W
R016	1-220-958-81	METAL 1K	5% 1/2W
R017	1-220-961-81	METAL 2.2K	5% 1/2W
R018	1-249-409-11	CARBON 220	5% 1/4W
R019	1-247-883-00	CARBON 150K	5% 1/4W
R021	1-247-847-31	CARBON 4.7K	5% 1/4W
R025	1-220-961-81	METAL 2.2K	5% 1/2W
R026	1-220-958-81	METAL 1K	5% 1/2W
R027	1-247-847-31	CARBON 4.7K	5% 1/4W
R028	1-247-807-31	CARBON 100	5% 1/4W
R029	1-247-847-31	CARBON 4.7K	5% 1/4W
R031	1-220-958-81	METAL 1K	5% 1/2W
R032	1-220-961-81	METAL 2.2K	5% 1/2W
R033	1-220-958-81	METAL 1K	5% 1/2W
R035	1-220-958-81	METAL 1K	5% 1/2W
R036	1-220-958-81	METAL 1K	5% 1/2W
R037	1-220-958-81	METAL 1K	5% 1/2W
R039	1-220-958-81	METAL 1K	5% 1/2W
R041	1-247-807-31	CARBON 100	5% 1/4W
R042	1-249-412-11	CARBON 390	5% 1/4W
R045	1-220-961-81	METAL 2.2K	5% 1/2W
R047	1-247-807-31	CARBON 100	5% 1/4W
R048	1-247-807-31	CARBON 100	5% 1/4W
R053	1-220-961-81	METAL 2.2K	5% 1/2W
R054	1-247-855-31	CARBON 10K	5% 1/4W
R056	1-247-847-31	CARBON 4.7K	5% 1/4W
R057	1-220-958-81	METAL 1K	5% 1/2W



REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R058	1-247-847-31	CARBON	4.7K	5%	1/4W		R325	1-249-411-11	CARBON	330	5%	1/4W	
R060	1-249-411-11	CARBON	330	5%	1/4W		R326	1-249-412-11	CARBON	390	5%	1/4W	
							R330	1-220-958-81	METAL	1K	5%	1/2W	
R061	1-220-961-81	METAL	2.2K	5%	1/2W		R331	1-247-897-11	CARBON	560K	5%	1/4W	
R063	1-220-961-81	METAL	2.2K	5%	1/2W		R332	1-249-409-11	CARBON	220	5%	1/4W	
R065	1-249-409-11	CARBON	220	5%	1/4W								
R066	1-249-409-11	CARBON	220	5%	1/4W		R334	1-247-823-31	CARBON	470	5%	1/4W	
R068	1-247-807-31	CARBON	100	5%	1/4W		R335	1-247-855-31	CARBON	10K	5%	1/4W	
							R336	1-220-961-81	METAL	2.2K	5%	1/2W	
R071	1-249-411-11	CARBON	330	5%	1/4W		R339	1-215-408-00	METAL	300	1%	1/4W	
R076	1-247-807-31	CARBON	100	5%	1/4W		R340	1-249-410-11	CARBON	270	5%	1/4W	
R077	1-247-807-31	CARBON	100	5%	1/4W								
R090	1-247-855-31	CARBON	10K	5%	1/4W		R341	1-220-958-81	METAL	1K	5%	1/2W	
R101	1-247-847-31	CARBON	4.7K	5%	1/4W		R344	1-259-880-11	CARBON	2.2M	5%	1/4W	
							R351	1-249-393-11	CARBON	10	5%	1/4W	
R102	1-220-958-81	METAL	1K	5%	1/2W		R355	1-249-393-11	CARBON	10	5%	1/4W	
R113	1-249-433-11	CARBON	22K	5%	1/4W		R356	1-220-958-81	METAL	1K	5%	1/2W	
R114	1-247-823-31	CARBON	470	5%	1/4W								
R115	1-249-433-11	CARBON	22K	5%	1/4W		R360	1-259-884-11	CARBON	4.7M	5%	1/4W	
R116	1-249-433-11	CARBON	22K	5%	1/4W		R401	1-249-435-11	CARBON	33K	5%	1/4W	
							R402	1-249-433-11	CARBON	22K	5%	1/4W	
R117	1-249-433-11	CARBON	22K	5%	1/4W		R403	1-220-946-81	METAL	68	5%	1/2W	
R118	1-249-433-11	CARBON	22K	5%	1/4W		R404	1-249-410-11	CARBON	270	5%	1/4W	
R119	1-220-960-81	METAL	1.8K	5%	1/2W								
R120	1-247-891-00	CARBON	330K	5%	1/4W		R406	1-247-847-31	CARBON	4.7K	5%	1/4W	
R131	1-216-464-11	METAL OXIDE	18K	5%	2W	F	R407	1-240-220-81	METAL	3.9K	5%	1/2W	
							R408	1-220-960-81	METAL	1.8K	5%	1/2W	
R180	1-249-409-11	CARBON	220	5%	1/4W		R409	1-247-807-31	CARBON	100	5%	1/4W	
R181	1-249-409-11	CARBON	220	5%	1/4W		R410	1-247-855-31	CARBON	10K	5%	1/4W	
R182	1-249-409-11	CARBON	220	5%	1/4W								
R241	1-249-408-11	CARBON	180	5%	1/4W		R411	1-220-961-81	METAL	2.2K	5%	1/2W	
R242	1-249-408-11	CARBON	180	5%	1/4W		R412	1-249-427-11	CARBON	6.8K	5%	1/4W	
							R413	1-220-961-81	METAL	2.2K	5%	1/2W	
R243	1-247-855-31	CARBON	10K	5%	1/4W		R414	1-247-823-31	CARBON	470	5%	1/4W	
R244	1-247-855-31	CARBON	10K	5%	1/4W		R414	1-247-823-31	CARBON	470	5%	1/4W	
R245	1-247-855-31	CARBON	10K	5%	1/4W								
R246	1-247-855-31	CARBON	10K	5%	1/4W		R415	1-249-409-11	CARBON	220	5%	1/4W	
R247	1-220-959-81	METAL	1.5K	5%	1/2W		R416	1-249-409-11	CARBON	220	5%	1/4W	
							R417	1-249-409-11	CARBON	220	5%	1/4W	
R248	1-220-959-81	METAL	1.5K	5%	1/2W		R418	1-249-415-11	CARBON	680	5%	1/4W	
R249	1-220-958-81	METAL	1K	5%	1/2W		R419	1-220-958-81	METAL	1K	5%	1/2W	
R250	1-220-958-81	METAL	1K	5%	1/2W								
R253	1-247-855-31	CARBON	10K	5%	1/4W		R420	1-249-412-11	CARBON	390	5%	1/4W	
R264	1-247-847-31	CARBON	4.7K	5%	1/4W		R421	1-249-409-11	CARBON	220	5%	1/4W	
							R422	1-247-809-31	CARBON	120	5%	1/4W	
R265	1-247-847-31	CARBON	4.7K	5%	1/4W		R423	1-249-407-11	CARBON	150	5%	1/4W	
R266	1-249-437-11	CARBON	47K	5%	1/4W		R424	1-220-961-81	METAL	2.2K	5%	1/2W	
R303	1-247-807-31	CARBON	100	5%	1/4W								
R304	1-247-807-31	CARBON	100	5%	1/4W		R425	1-249-412-11	CARBON	390	5%	1/4W	
R305	1-247-807-31	CARBON	100	5%	1/4W		R426	1-249-407-11	CARBON	150	5%	1/4W	
							R431	1-249-433-11	CARBON	22K	5%	1/4W	
R306	1-247-807-31	CARBON	100	5%	1/4W		R432	1-247-823-31	CARBON	470	5%	1/4W	
R307	1-247-807-31	CARBON	100	5%	1/4W		R433	1-249-433-11	CARBON	22K	5%	1/4W	
R308	1-249-409-11	CARBON	220	5%	1/4W								
R309	1-249-409-11	CARBON	220	5%	1/4W		R434	1-247-823-31	CARBON	470	5%	1/4W	
R310	1-249-441-11	CARBON	100K	5%	1/4W		R435	1-247-823-31	CARBON	470	5%	1/4W	
							R436	1-249-433-11	CARBON	22K	5%	1/4W	
R311	1-249-430-11	CARBON	12K	5%	1/4W		R437	1-249-433-11	CARBON	22K	5%	1/4W	
R312	1-247-807-31	CARBON	100	5%	1/4W		R440	1-249-407-11	CARBON	150	5%	1/4W	
R313	1-249-437-11	CARBON	47K	5%	1/4W								
R316	1-247-847-31	CARBON	4.7K	5%	1/4W		R441	1-220-946-81	METAL	68	5%	1/2W	
R317	1-220-958-81	METAL	1K	5%	1/2W		R521	1-249-417-11	CARBON	1K	5%	1/4W	
							R552	1-247-895-00	CARBON	470K	5%	1/4W	
R318	1-220-978-81	METAL	120K	5%	1/2W		R553	1-249-437-11	CARBON	47K	5%	1/4W	
R319	1-259-877-11	CARBON	1.2M	5%	1/4W		R554	1-102-074-00	CERAMIC	0.001MF	10%	50V	
R320	1-249-434-11	CARBON	27K	5%	1/4W								
R321	1-215-459-00	METAL	39K	1%	1/4W		R555	1-247-855-31	CARBON	10K	5%	1/4W	
R322	1-249-434-11	CARBON	27K	5%	1/4W		R556	1-249-417-11	CARBON	1K	5%	1/4W	

KV-J25MN1AK
RM-883



REF. NO.	PART NO.	DESCRIPTION	REMARK			
R557	1-249-420-11	CARBON	1.8K	5%	1/4W	
R561	1-247-839-31	CARBON	2.2K	5%	1/4W	
R562	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R563	1-260-126-11	CARBON	180K	5%	1/2W	
R564	1-249-438-11	CARBON	56K	5%	1/4W	
R565	1-249-438-11	CARBON	56K	5%	1/4W	
R566	1-247-847-31	CARBON	4.7K	5%	1/4W	
R569	1-260-354-71	CARBON	150K	5%	1/2W	
R571	1-249-409-11	CARBON	220	5%	1/4W	
R801	1-215-945-11	METAL OXIDE	3.3K	5%	5W	F
R802	1-249-381-11	CARBON	1	5%	1/4W	F
R803	1-247-839-31	CARBON	2.2K	5%	1/4W	
R804	1-249-417-11	CARBON	1K	5%	1/4W	
R805	1-249-433-11	CARBON	22K	5%	1/4W	
R809	1-247-756-11	CARBON	2.2K	5%	1/2W	F
R811	1-216-346-00	METAL OXIDE	0.56	5%	1W	F
R812	1-215-447-00	METAL	12K	1%	1/4W	
R816	1-249-437-11	CARBON	47K	5%	1/4W	
R820	1-249-419-11	CARBON	1.5K	5%	1/4W	
R821	1-215-910-00	METAL OXIDE	68	5%	3W	F
R822	1-216-429-00	METAL OXIDE	270	5%	1W	F
R823	1-247-756-11	CARBON	2.2K	5%	1/2W	F
R825	1-249-392-11	CARBON	8.2	5%	1/4W	F
R826	1-249-422-11	CARBON	2.7K	5%	1/4W	
R827	1-249-441-11	CARBON	100K	5%	1/4W	
R828	1-249-424-11	CARBON	3.9K	5%	1/4W	
R829	1-249-419-11	CARBON	1.5K	5%	1/4W	
R831	1-215-861-00	METAL OXIDE	47	5%	1W	F
R832	1-247-839-31	CARBON	2.2K	5%	1/4W	
R834	1-247-855-31	CARBON	10K	5%	1/4W	
R851	1-249-382-11	CARBON	1.2	5%	1/4W	F
R852	1-249-923-11	CARBON	1K	5%	1/4W	F
R853	1-249-377-11	CARBON	0.47	5%	1/4W	F
R854	1-249-377-11	CARBON	0.47	5%	1/4W	F
R855	1-202-818-00	SOLID	1K	20%	1/2W	
R856	1-249-431-11	CARBON	15K	5%	1/4W	
R857	1-249-438-11	CARBON	56K	5%	1/4W	
R858	1-216-370-11	METAL OXIDE	1.2	5%	2W	F
R860	1-247-887-00	CARBON	220K	5%	1/4W	
R881	1-247-825-31	CARBON	560	5%	1/4W	
R882	1-249-422-11	CARBON	2.7K	5%	1/4W	
R883	1-247-903-00	CARBON	1M	5%	1/4W	
R895	1-216-348-00	METAL OXIDE	0.82	5%	1W	F
R898	1-247-839-31	CARBON	2.2K	5%	1/4W	
R902	1-247-847-31	CARBON	4.7K	5%	1/4W	
R904	1-247-847-31	CARBON	4.7K	5%	1/4W	
R1201	1-249-404-00	CARBON	82	5%	1/4W	
R1202	1-220-958-81	METAL	1K	5%	1/2W	
R1203	1-249-437-11	CARBON	47K	5%	1/4W	
R1204	1-249-437-11	CARBON	47K	5%	1/4W	
R1205	1-249-404-00	CARBON	82	5%	1/4W	
R1206	1-249-437-11	CARBON	47K	5%	1/4W	
R1207	1-249-437-11	CARBON	47K	5%	1/4W	
R1209	1-220-963-81	METAL	3.3K	5%	1/2W	
R1210	1-220-963-81	METAL	3.3K	5%	1/2W	
R1211	1-220-946-81	METAL	68	5%	1/2W	

REF. NO.	PART NO.	DESCRIPTION	REMARK			
R1212	1-220-958-81	METAL	1K	5%	1/2W	
R1213	1-220-958-81	METAL	1K	5%	1/2W	
R1214	1-247-895-00	CARBON	470K	5%	1/4W	
R1215	1-247-895-00	CARBON	470K	5%	1/4W	
R1216	1-247-895-00	CARBON	470K	5%	1/4W	
R1217	1-247-823-31	CARBON	470	5%	1/4W	
R1219	1-247-855-31	CARBON	10K	5%	1/4W	
R1220	1-220-958-81	METAL	1K	5%	1/2W	
R1221	1-247-855-31	CARBON	10K	5%	1/4W	
R1225	1-247-807-31	CARBON	100	5%	1/4W	
R1226	1-249-436-11	CARBON	39K	5%	1/4W	
R1227	1-249-436-11	CARBON	39K	5%	1/4W	
R1228	1-220-958-81	METAL	1K	5%	1/2W	
R1229	1-247-823-31	CARBON	470	5%	1/4W	
R1230	1-247-855-31	CARBON	10K	5%	1/4W	
R1231	1-220-958-81	METAL	1K	5%	1/2W	
R1232	1-240-220-81	METAL	3.9K	5%	1/2W	
R1233	1-220-961-81	METAL	2.2K	5%	1/2W	
R1234	1-249-436-11	CARBON	39K	5%	1/4W	
R1235	1-249-436-11	CARBON	39K	5%	1/4W	
R1236	1-247-855-31	CARBON	10K	5%	1/4W	
R1237	1-247-855-31	CARBON	10K	5%	1/4W	
R1238	1-247-823-31	CARBON	470	5%	1/4W	
R1239	1-249-389-11	CARBON	4.7	5%	1/4W	F
R1240	1-247-807-31	CARBON	100	5%	1/4W	
R1241	1-220-958-81	METAL	1K	5%	1/2W	
R1242	1-220-958-81	METAL	1K	5%	1/2W	
R1243	1-249-407-11	CARBON	150	5%	1/4W	
R1246	1-249-411-11	CARBON	330	5%	1/4W	
R1247	1-247-823-31	CARBON	470	5%	1/4W	
R1248	1-220-958-81	METAL	1K	5%	1/2W	
R1249	1-247-823-31	CARBON	470	5%	1/4W	
R1281	1-220-958-81	METAL	1K	5%	1/2W	
R1282	1-220-958-81	METAL	1K	5%	1/2W	
R1283	1-220-958-81	METAL	1K	5%	1/2W	
R1284	1-249-432-11	CARBON	18K	5%	1/4W	
R1285	1-249-437-11	CARBON	47K	5%	1/4W	
R1286	1-247-855-31	CARBON	10K	5%	1/4W	
R1287	1-247-903-00	CARBON	1M	5%	1/4W	
R1288	1-220-959-81	METAL	1.5K	5%	1/2W	
R1289	1-247-903-00	CARBON	1M	5%	1/4W	
R1290	1-247-897-11	CARBON	560K	5%	1/4W	
R1291	1-247-895-00	CARBON	470K	5%	1/4W	
R1513	1-247-855-31	CARBON	10K	5%	1/4W	
R1514	1-247-847-31	CARBON	4.7K	5%	1/4W	
R1515	1-247-807-31	CARBON	100	5%	1/4W	
R5917	1-249-389-11	CARBON	4.7	5%	1/4W	
R5918	1-249-389-11	CARBON	4.7	5%	1/4W	
		<SWITCH>				
S801	1-572-707-11	SWITCH, LEVER				
		<SPARK GAP>				
SG801	1-519-422-11	GAP, SPARK				

The components identified by shading
and mark $\triangle$ are critical for safety.
Replace only with part number specified.

A **A₃**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<SURFACE WAVE FILTER>					
SWF401	1-760-771-11	FILTER, SURFACE WAVE		C1232	1-124-234-00	ELECT 22MF	20% 16V
				C1233	1-126-962-11	ELECT 3.3MF	20% 50V
		<TRANSFORMER>		C1234	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
T801	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE		C1235	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
T851	$\triangle$ 1-453-190-21	TRANSFORMER ASSY, FLYBACK (NX-2743//M3B)		C1236	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
				C1237	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C1238	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		<TUNER>		C1239	1-126-157-11	ELECT 10MF	20% 16V
TU101	$\triangle$ 8-598-323-31	TUNER, VSS BT-AG401		C1240	1-164-222-11	CERAMIC CHIP 0.22MF	25V
				C1241	1-125-794-51	ELECT 47MF	20% 16V
				C1242	1-104-760-11	CERAMIC CHIP 0.047MF	10% 50V
				C1243	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
		<CRYSTAL>		C1244	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
X101	1-577-082-11	VIBRATOR, CERAMIC		C1245	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
X300	1-411-752-11	COIL		C1246	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
X358	1-567-505-11	OSCILLATOR, CRYSTAL		C1247	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
X443	1-567-504-11	OSCILLATOR, CRYSTAL		C1248	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V

	* A-1298-553-A	A3 BOARD, COMPLETE	*****	C1250	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C1252	1-216-295-91	SHORT 0	
				C1253	1-216-295-91	SHORT 0	
				C1254	1-124-234-00	ELECT 22MF	20% 16V
				C1255	1-124-584-00	ELECT 100MF	20% 10V
				C1256	1-164-005-11	CERAMIC CHIP 0.47MF	25V
				C1257	1-164-222-11	CERAMIC CHIP 0.22MF	25V
				C1258	1-163-033-91	CERAMIC CHIP 0.022MF	50V
				C1260	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
				C1261	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
		<CAPACITOR>		C1262	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C1201	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1263	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C1202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1264	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C1205	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C1265	1-124-234-00	ELECT 22MF	20% 16V
C1206	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C1266	1-125-794-51	ELECT 47MF	20% 16V
C1207	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1267	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1208	1-163-083-00	CERAMIC CHIP 1PF	0.25PF 50V	C1268	1-124-584-00	ELECT 100MF	20% 10V
C1209	1-163-109-00	CERAMIC CHIP 47PF	5% 50V			<CONNECTOR>	
C1210	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	CN1201	1-691-109-11	PLUG (L TYPE) 12P	
C1211	1-124-584-00	ELECT 100MF	20% 10V			<DIODE>	
C1212	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	D1201	8-719-908-03	DIODE GP08D	
C1213	1-126-151-11	ELECT 4.7MF	20% 16V			<FERRITE BEAD>	
C1214	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	FB1201	1-412-911-31	FERRITE 0UH	
C1215	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	FB1202	1-412-911-31	FERRITE 0UH	
C1216	1-125-798-51	ELECT 0.47MF	20% 63V	FB1203	1-412-911-31	FERRITE 0UH	
C1217	1-163-033-91	CERAMIC CHIP 0.022MF	50V	FB1204	1-412-911-31	FERRITE 0UH	
C1218	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	FB1205	1-412-911-31	FERRITE 0UH	
C1219	1-124-584-00	ELECT 100MF	20% 10V	FB1206	1-412-911-31	FERRITE 0UH	
C1221	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			<FILTER>	
C1222	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL1201	1-239-803-11	ENCAPSULATED COMPONENT	
C1223	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1224	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1225	1-163-093-00	CERAMIC CHIP 10PF	5% 50V				
C1226	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C1227	1-163-131-00	CERAMIC CHIP 390PF	5% 50V				
C1228	1-163-131-00	CERAMIC CHIP 390PF	5% 50V				
C1229	1-126-157-11	ELECT 10MF	20% 16V				
C1230	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1231	1-126-157-11	ELECT 10MF	20% 16V				



REF. NO.	PART NO.	DESCRIPTION		REMARK		
<IC>						
IC1201	8-752-059-57	IC CXA1110BS				
IC1202	8-759-429-98	IC MSP3410B-PP-F7				
IC1203	8-759-231-53	IC TA7805S				
<CHIP CONDUCTOR>						
JR1	1-216-295-91	SHORT	0			
JR2	1-216-295-91	SHORT	0			
JR3	1-216-295-91	SHORT	0			
JR4	1-216-295-91	SHORT	0			
JR5	1-216-295-91	SHORT	0			
JR6	1-216-295-91	SHORT	0			
JR7	1-216-295-91	SHORT	0			
JR8	1-216-295-91	SHORT	0			
JR9	1-216-295-91	SHORT	0			
JR10	1-216-295-91	SHORT	0			
JR11	1-216-295-91	SHORT	0			
<COIL>						
L1201	1-408-399-00	INDUCTOR	1.5UH			
L1202	1-412-010-41	INDUCTOR CHIP	22UH			
L1203	1-408-602-11	INDUCTOR	8.2UH			
L1204	1-408-591-11	INDUCTOR	1UH			
L1205	1-408-602-11	INDUCTOR	8.2UH			
L1206	1-412-951-11	INDUCTOR	10UH			
L1207	1-412-951-11	INDUCTOR	10UH			
<TRANSISTOR>						
Q1201	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q1203	8-729-266-92	TRANSISTOR 2SC2669-O				
Q1205	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1206	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1207	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q1211	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q1212	8-729-230-49	TRANSISTOR 2SC2712-YG				
<RESISTOR>						
R1201	1-216-022-00	RES,CHIP	75	5%	1/10W	
R1202	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R1203	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1204	1-216-035-00	RES,CHIP	270	5%	1/10W	
R1205	1-216-027-00	RES,CHIP	120	5%	1/10W	
R1207	1-216-053-00	RES,CHIP	1.5K	5%	1/10W	
R1209	1-216-035-00	RES,CHIP	270	5%	1/10W	
R1210	1-216-041-00	RES,CHIP	470	5%	1/10W	
R1211	1-216-015-00	RES,CHIP	39	5%	1/10W	
R1212	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1213	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1214	1-216-033-00	RES,CHIP	220	5%	1/10W	
R1217	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1218	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1219	1-216-047-91	RES,CHIP	820	5%	1/10W	

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1220	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1223	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1224	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1225	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1226	1-216-295-91	SHORT	0		
R1227	1-216-295-91	SHORT	0		
R1228	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1229	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1230	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1231	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1232	1-216-027-00	RES,CHIP	120	5%	1/10W
R1233	1-216-045-00	RES,CHIP	680	5%	1/10W
R1234	1-216-045-00	RES,CHIP	680	5%	1/10W
R1240	1-216-041-00	RES,CHIP	470	5%	1/10W
R1241	1-216-075-00	RES,CHIP	12K	5%	1/10W
R1242	1-216-027-00	RES,CHIP	120	5%	1/10W
R1243	1-216-037-00	RES,CHIP	330	5%	1/10W
R1244	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1245	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1246	1-260-306-51	CARBON	15	5%	1/2W
<SWITCH>					
SW1201	1-579-560-11	FILTER, SAWTOOTH WAVE			
SW1202	1-579-559-11	FILTER, SAWTOOTH WAVE			
<TRANSFORMER>					
T1202	1-416-000-11	COIL			
<CRYSTAL>					
X1201	1-760-094-11	VIBRATOR, CRYSTAL			

	A-1294-403-A	A4 BOARD, COMPLETE			

<CAPACITOR>					
C3001	1-101-884-00	CERAMIC	56PF	5%	50V
C3002	1-101-884-00	CERAMIC	56PF	5%	50V
C3003	1-101-884-00	CERAMIC	56PF	5%	50V
C3004	1-126-960-11	ELECT	1MF	20%	50V
C3005	1-126-960-11	ELECT	1MF	20%	50V
C3006	1-126-960-11	ELECT	1MF	20%	50V
C3007	1-104-665-11	ELECT	100MF	20%	25V
<CONNECTOR>					
CN3001*	1-564-509-11	PLUG, CONNECTOR 6P			
CN3002*	1-779-784-11	PIN, CONNECTOR (PC BOARD) 6P			



REF. NO.	PART NO.	DESCRIPTION		REMARK		REF. NO.	PART NO.	DESCRIPTION		REMARK	
<COIL>						<TRANSISTOR>					
L3001	1-408-610-31	INDUCTOR	39UH			Q410	8-729-119-76	TRANSISTOR 2SA1175-HFE			
L3003	1-408-610-31	INDUCTOR	39UH			Q411	8-729-119-78	TRANSISTOR 2SC2785-HFE			
L3005	1-408-610-31	INDUCTOR	39UH			Q413	8-729-029-92	TRANSISTOR DTC143ESA			
L3007	1-410-476-11	INDUCTOR	33UH			<RESISTOR>					
L3008	1-410-476-11	INDUCTOR	33UH			R427	1-249-411-11	CARBON	330	5%	1/4W
L3009	1-410-476-11	INDUCTOR	33UH			R428	1-249-433-11	CARBON	22K	5%	1/4W
<TRANSISTOR>						R429	1-249-412-11	CARBON	390	5%	1/4W
Q3001	8-729-119-78	TRANSISTOR 2SC2785-HFE				R430	1-247-823-31	CARBON	470	5%	1/4W
Q3002	8-729-119-78	TRANSISTOR 2SC2785-HFE				*****					
Q3003	8-729-119-78	TRANSISTOR 2SC2785-HFE				<RESISTOR>					
R3001	1-247-825-31	CARBON	560	5%	1/4W	* A-1294-331-A	A12 BOARD, COMPLETE				
R3002	1-247-825-31	CARBON	560	5%	1/4W	*****					
R3003	1-247-825-31	CARBON	560	5%	1/4W	<CAPACITOR>					
R3004	1-247-809-31	CARBON	120	5%	1/4W	C201	1-126-960-11	ELECT	1MF	20%	50V
R3005	1-247-809-31	CARBON	120	5%	1/4W	C202	1-125-804-51	ELECT	100MF	20%	16V
R3006	1-247-809-31	CARBON	120	5%	1/4W	C203	1-126-960-11	ELECT	1MF	20%	50V
R3007	1-260-093-11	CARBON	330	5%	1/2W	C204	1-125-804-51	ELECT	100MF	20%	16V
R3008	1-260-093-11	CARBON	330	5%	1/2W	C205	1-136-159-00	FILM	0.033MF	5%	50V
R3009	1-260-093-11	CARBON	330	5%	1/2W	C206	1-130-480-00	MYLAR	0.0056MF	5%	50V
R3010	1-260-093-11	CARBON	330	5%	1/2W	C207	1-125-800-51	ELECT	2.2MF	20%	63V
R3011	1-260-093-11	CARBON	330	5%	1/2W	C208	1-125-800-51	ELECT	2.2MF	20%	63V
R3012	1-260-093-11	CARBON	330	5%	1/2W	C209	1-130-480-00	MYLAR	0.0056MF	5%	50V
*****						C210	1-136-159-00	FILM	0.033MF	5%	50V
						C211	1-136-165-00	FILM	0.1MF	5%	50V
						C1212	1-126-960-11	ELECT	1MF	20%	50V
						C1219	1-125-804-51	ELECT	100MF	20%	16V
						C1222	1-137-194-51	FILM	0.47MF	5%	50V
						C1223	1-126-960-11	ELECT	1MF	20%	50V
						C1225	1-137-194-51	FILM	0.47MF	5%	50V
						C1228	1-126-960-11	ELECT	1MF	20%	50V
<CAPACITOR>						<CONNECTOR>					
C414	1-102-973-00	CERAMIC	100PF	5%	50V	CN1211*	1-778-603-11	PIN, CONNECTOR (PC BOARD) 12P			
C417	1-102-973-00	CERAMIC	100PF	5%	50V	CN1212*	1-778-603-11	PIN, CONNECTOR (PC BOARD) 12P			
C418	1-102-820-00	CERAMIC	330PF	5%	50V	<DIODE>					
CN401	* 1-778-603-11	PIN, CONNECTOR (PC BOARD) 12P				D1209	8-719-121-26	DIODE RD9.1ESL2			
<TRIMMER>						<IC>					
CT55	1-404-801-11	TRAP, CERAMIC				IC201	8-759-090-21	IC TDA8424			
<IC>						IC202	8-759-708-12	IC NJM78L12A			
IC401	8-759-800-65	IC LA7910				IC1211	8-759-711-23	IC NJM2234L			
						IC1212	8-759-711-23	IC NJM2234L			



REF. NO.	PART NO.	DESCRIPTION				REMARK
<TRANSISTOR>						
Q1205	8-729-119-76	TRANSISTOR 2SA1175-HFE				
<RESISTOR>						
R203	1-249-409-11	CARBON	220	5%	1/4W	
R204	1-249-409-11	CARBON	220	5%	1/4W	
R1222	1-220-958-81	METAL	1K	5%	1/2W	
R1223	1-247-855-31	CARBON	10K	5%	1/4W	
R1224	1-247-855-31	CARBON	10K	5%	1/4W	
R1222	1-220-958-81	METAL	1K	5%	1/2W	
R1223	1-247-855-31	CARBON	10K	5%	1/4W	
R1224	1-247-855-31	CARBON	10K	5%	1/4W	
R1244	1-249-407-11	CARBON	150	5%	1/4W	

	* A-1331-802-A	C BOARD, COMPLETE				

	4-382-854-11	SCREW (M3X10), P, SW (+)				
<CAPACITOR>						
C701	1-162-114-00	CERAMIC	0.0047MF		2KV	
C702	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C703	1-107-651-11	ELECT	4.7MF	20%	250V	
C704	1-130-202-00	FILM	0.022MF	5%	400V	
C708	1-102-114-00	CERAMIC	470PF	10%	50V	
C709	1-102-114-00	CERAMIC	470PF	10%	50V	
C710	1-102-114-00	CERAMIC	470PF	10%	50V	
C712	1-102-112-00	CERAMIC	330PF	10%	50V	
C713	1-102-112-00	CERAMIC	330PF	10%	50V	
C714	1-102-112-00	CERAMIC	330PF	10%	50V	
C716	1-125-812-51	ELECT	100MF	20%	50V	
<CONNECTOR>						
CN701	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P				
CN703	* 1-564-509-11	PLUG, CONNECTOR 6P				
CN704	1-695-915-11	TAB (CONTACT)				
<DIODE>						
D701	8-719-911-19	DIODE 1SS119-25				
D702	8-719-911-19	DIODE 1SS119-25				
D703	8-719-911-19	DIODE 1SS119-25				
D707	8-719-911-19	DIODE 1SS119-25				
D708	8-719-911-19	DIODE 1SS119-25				
D709	8-719-911-19	DIODE 1SS119-25				
D710	8-719-911-19	DIODE 1SS119-25				
D711	8-719-911-19	DIODE 1SS119-25				

REF. NO.	PART NO.	DESCRIPTION				REMARK
D712	8-719-911-19	DIODE 1SS119-25				
D716	8-719-911-19	DIODE 1SS119-25				
D717	8-719-121-26	DIODE RD9.1ESL2				
		<JACK>				
J701	1-251-239-11	SOCKET, CRT				
		<COIL>				
L701	1-410-667-31	INDUCTOR	22UH			
		<TRANSISTOR>				
Q704	8-729-326-11	TRANSISTOR 2SC2611				
Q705	8-729-326-11	TRANSISTOR 2SC2611				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-200-17	TRANSISTOR 2SA1091-O				
Q709	8-729-200-17	TRANSISTOR 2SA1091-O				
Q710	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q711	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R701	1-244-941-00	CARBON	680K	5%	1/2W	
R702	1-249-496-11	CARBON	100K	5%	1/2W	
R703	1-249-496-11	CARBON	100K	5%	1/2W	
R705	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R710	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R711	1-247-763-11	CARBON	8.2K	5%	1/2W	
R712	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R713	1-247-763-11	CARBON	8.2K	5%	1/2W	
R714	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R715	1-247-763-11	CARBON	8.2K	5%	1/2W	
R719	1-215-488-00	METAL	620K	1%	1/4W	
R720	1-249-923-11	CARBON	1K	5%	1/4W	F
R721	1-215-489-00	METAL	680K	1%	1/4W	
R722	1-249-923-11	CARBON	1K	5%	1/4W	F
R723	1-215-481-00	METAL	330K	1%	1/4W	
R724	1-249-923-11	CARBON	1K	5%	1/4W	F
R725	1-220-959-81	METAL	1.5K	5%	1/2W	
R726	1-220-959-81	METAL	1.5K	5%	1/2W	
R727	1-220-959-81	METAL	1.5K	5%	1/2W	
R728	1-249-407-11	CARBON	150	5%	1/4W	
R729	1-249-407-11	CARBON	150	5%	1/4W	
R730	1-249-407-11	CARBON	150	5%	1/4W	
R731	1-247-823-31	CARBON	470	5%	1/4W	
R732	1-247-823-31	CARBON	470	5%	1/4W	
R733	1-247-823-31	CARBON	470	5%	1/4W	
R734	1-247-739-11	CARBON	100	5%	1/2W	
R738	1-247-807-31	CARBON	100	5%	1/4W	
R739	1-247-807-31	CARBON	100	5%	1/4W	
R740	1-247-807-31	CARBON	100	5%	1/4W	
R755	1-220-963-81	METAL	3.3K	5%	1/2W	

The components identified by shading
and mark $\triangle$ are critical for safety.
Replace only with part number specified.

C F₁ F₂

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
R756	1-220-963-81	METAL	3.3K	5%	1/2W	C618	1-126-933-11	ELECT	100MF	20%	16V
R757	1-220-963-81	METAL	3.3K	5%	1/2W	C620	1-102-002-00	CERAMIC	680PF	10%	500V
		<VARIABLE RESISTOR>				C621	1-102-002-00	CERAMIC	680PF	10%	500V
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				C624	1-102-002-00	CERAMIC	680PF	10%	500V

	* A-1241-328-A	F1 BOARD, COMPLETE				C626	1-102-074-00	CERAMIC	0.001MF	10%	50V
		*****				C627	1-162-116-00	CERAMIC	680PF	10%	2KV
	1-533-223-11	CLIP, FUSE				C629	1-162-116-00	CERAMIC	680PF	10%	2KV
		<CONNECTOR>				C632	1-106-220-00	MYLAR	0.1MF	10%	100V
CN1690*	1-580-844-11	PIN, CONNECTOR (POWER)				C633	1-162-318-11	CERAMIC	0.001MF	10%	500V
CN1691*	1-695-292-11	PIN, CONNECTOR (POWER)				C640	1-126-935-11	ELECT	470MF	20%	16V
		<FUSE>				C642	1-102-212-00	CERAMIC	820PF	10%	500V
F1690 $\triangle$	1-532-350-11	FUSE, TIME-LAG 4A/250V				C643	1-102-212-00	CERAMIC	820PF	10%	500V
		<SWITCH>				C644	1-102-212-00	CERAMIC	820PF	10%	500V
S1690 $\triangle$	1-571-433-21	SWITCH, PUSH (AC POWER)				C2602 $\triangle$	1-136-360-51	FILM	0.22MF	20%	250V

	* A-1241-327-A	F2 BOARD, COMPLETE				C2605 $\triangle$	1-164-497-51	CERAMIC	470PF	10%	400V
		*****				C2606	1-161-830-00	CERAMIC	0.0047MF	99%	500V
	4-382-854-11	SCREW (M3X10), P, SW (+)				C2607	1-161-830-00	CERAMIC	0.0047MF	99%	500V
	4-382-854-21	SCREW (M3X14), P, SW (+)				C2609	1-161-830-00	CERAMIC	0.0047MF	99%	500V
		<CAPACITOR>				C2610	1-161-830-00	CERAMIC	0.0047MF	99%	500V
C601	1-126-933-11	ELECT	100MF	20%	16V	C2613	1-162-318-11	CERAMIC	0.001MF	10%	500V
C602	1-128-582-11	ELECT	10MF	20%	100V	C2617	1-125-905-11	ELECT	560MF	20%	450V
C603	1-126-934-11	ELECT	220MF	20%	16V	C2618	1-136-601-11	FILM	0.01MF	10%	630V
C604	1-102-074-00	CERAMIC	0.001MF	10%	50V			<CONNECTOR>			
C605	1-136-619-11	FILM	0.0016MF	3%	2KV	CN1601	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
C606 $\triangle$	1-164-497-51	CERAMIC	470PF	10%	400V	CN1602*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
C607	1-102-002-00	CERAMIC	680PF	10%	500V	CN1603*	1-564-506-11	PLUG, CONNECTOR 3P			
C608	1-128-339-11	ELECT	2200MF	20%	16V	CN1604*	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P			
C609	1-128-581-51	ELECT	4.7MF	20%	100V	CN1605	1-564-506-11	PLUG, CONNECTOR 3P			
C610	1-161-754-00	CERAMIC	0.001MF	10%	3KV	CN1607*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
C611	1-102-002-00	CERAMIC	680PF	10%	500V	CN2600*	1-695-292-11	PIN, CONNECTOR (POWER)			
C612	1-102-002-00	CERAMIC	680PF	10%	500V	CN2602*	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
C613	1-125-494-11	ELECT(BLOCK)	560MF	20%	160V			<DIODE>			
C614	1-126-943-11	ELECT	2200MF	20%	25V	D601	8-719-110-08	DIODE RD8.2ESB2			
C615	1-128-550-11	ELECT	2200MF	20%	50V	D602	8-719-510-26	DIODE D1NL20-TA			
						D603	8-719-510-26	DIODE D1NL20-TA			
						D604	8-719-510-37	DIODE D5LC20U			
						D606	8-719-302-43	DIODE EL1Z			
						D607	8-719-510-73	DIODE S3L20UF4			
						D608	8-719-979-85	DIODE EGP20G			
						D609	8-719-312-10	DIODE RU4AM-T3			
						D611	8-719-510-37	DIODE D5LC20U			
						D612	8-719-110-03	DIODE RD7.5ESB2			
						D614	8-719-911-19	DIODE 1SS119-25			
						D616	8-719-510-26	DIODE D1NL20-TA			
						D618	8-719-016-42	DIODE MC932			
						D621	8-719-110-36	DIODE RD13ESB2			
						D633	8-719-911-19	DIODE 1SS119-25			
						D2600	8-719-510-53	DIODE D4SB60L			
						D2603	8-719-108-18	THIRSTER 5PGM			
						D2604	8-719-109-89	DIODE RD5.6ESB2			



The components identified by shading
and mark $\triangle$ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION		REMARK		
<FERRITE BEAD>						
FB600	1-410-397-21	FERRITE	1.1UH			
FB602	1-410-397-21	FERRITE	1.1UH			
FB603	1-410-397-21	FERRITE	1.1UH			
FB604	1-410-397-21	FERRITE	1.1UH			
FB605	1-410-397-21	FERRITE	1.1UH			
FB606	1-410-397-21	FERRITE	1.1UH			
FB607	1-410-397-21	FERRITE	1.1UH			
<IC>						
IC601	8-749-013-99	IC STR-S6709N				
IC602	8-749-920-61	IC SE-135N				
IC603	△ 8-749-010-64	PHOTO COUPLER PC123F2				
<COIL>						
L600	1-410-396-41	FERRITE	0.45UH			
L601	1-410-396-41	FERRITE	0.45UH			
L604	1-412-531-31	INDUCTOR	33UH			
L605	1-412-527-11	INDUCTOR	15UH			
L606	1-412-527-11	INDUCTOR	15UH			
<TRANSISTOR>						
Q600	8-729-028-34	TRANSISTOR 2SD1640Q,R				
Q601	8-729-203-79	TRANSISTOR 2SA1315-Y				
Q602	8-729-805-05	TRANSISTOR 2SC3601-E				
Q603	8-729-029-66	TRANSISTOR DTC114ESA				
Q2601	8-729-119-78	TRANSISTOR 2SC2785-HFE				
<RESISTOR>						
R601	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R602	1-249-417-11	CARBON	1K	5%	1/4W	
R603	1-249-443-11	CARBON	0.47	5%	1/4W	F
R604	1-216-400-11	METAL OXIDE	8.2	5%	3W	F
R606	1-216-422-11	METAL OXIDE	18	5%	1W	F
R607	1-247-843-11	CARBON	3.3K	5%	1/4W	
R608	1-249-489-11	CARBON	22K	5%	1/2W	F
R609	1-260-105-11	CARBON	3.3K	5%	1/2W	
R611	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R612	1-215-442-00	METAL	7.5K	1%	1/4W	
R614	1-247-847-31	CARBON	4.7K	5%	1/4W	
R615	1-249-377-11	CARBON	0.47	5%	1/4W	F
R616	1-215-884-11	METAL OXIDE	47	5%	2W	F
R618	1-207-612-00	WIREWOUND	0.1	10%	2W	F
R619	1-247-807-31	CARBON	100	5%	1/4W	
R620	1-247-847-31	CARBON	4.7K	5%	1/4W	
R621	1-249-377-11	CARBON	0.47	5%	1/4W	F
R624	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R625	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R626	1-219-134-11	FUSIBLE	0.1	10%	1/4W	
R634	1-247-807-31	CARBON	100	5%	1/4W	
R690	1-249-416-11	CARBON	820	5%	1/4W	
R2601	△ 1-247-289-11	METAL	8.2M	5%	1W	

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R2604	1-202-962-11	CEMENTED	3.3	5%	10W	
R2605	1-249-416-11	CARBON	820	5%	1/4W	F
R2606	1-249-416-11	CARBON	820	5%	1/4W	F
R2607	1-202-962-11	CEMENTED	3.3	5%	10W	
R2608	1-220-797-11	CEMENTED	0.47	5%	10W	F
R2609	1-220-797-11	CEMENTED	0.47	5%	10W	F
R2610	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R2611	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R2612	1-202-728-00	SOLID	5.6M	20%	1/2W	
<TRANSFORMER>						
T601	△ 1-429-775-11	TRANSFORMER, CONVERTER				
T2601	△ 1-424-585-11	TRANSFORMER, LINE FILTER				
<THERMISTOR>						
THP2600△1-810-961-11		THERMISTOR, POSITIVE				

* A-1372-527-A		H3 BOARD, COMPLETE				

* 4-055-304-01		HOLDER, LED				
<CAPACITOR>						
C900	1-125-794-51	ELECT	47MF	20%	16V	
C901	1-102-114-00	CERAMIC	470PF	10%	50V	
C902	1-125-794-51	ELECT	47MF	20%	16V	
C5900	1-136-153-00	FILM	0.01MF	5%	50V	
C5901	1-137-194-51	FILM	0.47MF	5%	50V	
C5903	1-125-813-51	ELECT	1000MF	20%	25V	
C5904	1-128-551-11	ELECT	22MF	20%	25V	
C5905	1-125-813-51	ELECT	1000MF	20%	25V	
C5906	1-128-551-11	ELECT	22MF	20%	25V	
C5911	1-137-194-51	FILM	0.47MF	5%	50V	
<CONNECTOR>						
CN900	* 1-564-509-11	PLUG, CONNECTOR 6P				
CN2901	* 1-564-506-11	PLUG, CONNECTOR 3P				
CN5901	* 1-564-509-21	PLUG, CONNECTOR 6P				
CN5902	1-564-511-11	PLUG, CONNECTOR 8P				
CN5903	* 1-564-507-11	PLUG, CONNECTOR 4P				
CN5904	* 1-564-507-11	PLUG, CONNECTOR 4P				
CN5907	1-564-506-11	PLUG, CONNECTOR 3P				
<DIODE>						
D901	8-719-911-19	DIODE 1SS119-25				
D902	8-719-109-84	DIODE RD5.1ESB1				
D903	8-719-045-19	DIODE SPB-26MVWF				



REF. NO.	PART NO.	DESCRIPTION	REMARK				REF. NO.	PART NO.	DESCRIPTION	REMARK			
D904	8-719-109-84	DIODE RD5.1ESB1					S2905	1-571-532-21	SWITCH, TACTILE				
D5903	8-719-121-26	DIODE RD9.1ESL2					S2906	1-571-532-21	SWITCH, TACTILE				
							S2907	1-571-532-21	SWITCH, TACTILE				
D5904	8-719-121-26	DIODE RD9.1ESL2					S2908	1-571-532-21	SWITCH, TACTILE				
D5905	8-719-911-19	DIODE 1SS119-25					S2909	1-571-532-21	SWITCH, TACTILE				
D5906	8-719-911-19	DIODE 1SS119-25											
D5907	8-719-121-26	DIODE RD9.1ESL2											
D5908	8-719-121-26	DIODE RD9.1ESL2											
D5909	1-249-404-00	CARBON	82	5%	1/4W	*****							
		<IC>					* A-1380-590-A	K BOARD, COMPLETE	*****				
IC900	8-742-041-12	HYB IC SBX1981-11(12)					4-352-844-01	PIN, LEAD, COATING					
IC5900	8-759-711-23	IC NJM2234L					4-382-854-11	SCREW (M3X10), P, SW (+)					
		<JACK>					<CAPACITOR>						
J5901	1-695-585-11	JACK BLOCK, PIN (L TYPE) 3P					C1501	1-136-165-00	FILM	0.1MF	5%	50V	
J5902	1-750-264-11	JACK					C1502	1-136-165-00	FILM	0.1MF	5%	50V	
J5903	1-778-045-11	TERMINAL, S					C1503	1-136-169-00	FILM	0.22MF	5%	50V	
		<TRANSISTOR>					C1505	1-125-806-51	ELECT	220MF	20%	16V	
							C1506	1-128-551-11	ELECT	22MF	20%	25V	
Q903	8-729-030-02	TRANSISTOR DTC144ESA					C1507	1-125-806-51	ELECT	220MF	20%	16V	
Q904	8-729-030-02	TRANSISTOR DTC144ESA					C1508	1-125-800-51	ELECT	2.2MF	20%	63V	
		<RESISTOR>					C1513	1-126-960-11	ELECT	1MF	20%	50V	
							C1514	1-128-551-11	ELECT	22MF	20%	25V	
							C1515	1-125-804-51	ELECT	100MF	20%	16V	
R901	1-249-401-11	CARBON	47	5%	1/4W	C1516	1-125-797-51	ELECT	10MF	20%	50V		
R902	1-249-404-00	CARBON	82	5%	1/4W	C1517	1-125-800-51	ELECT	2.2MF	20%	63V		
R903	1-249-409-11	CARBON	220	5%	1/4W	C1519	1-125-806-51	ELECT	220MF	20%	16V		
R905	1-247-807-31	CARBON	100	5%	1/4W	C1521	8-719-109-84	DIODE RD5.1ESB1					
R908	1-247-807-31	CARBON	100	5%	1/4W	C1524	1-126-943-11	ELECT	2200MF	20%	25V		
R2900	1-247-843-11	CARBON	3.3K	5%	1/4W	C1525	1-126-950-11	ELECT	330MF	20%	35V		
R2901	1-249-420-11	CARBON	1.8K	5%	1/4W	C1526	1-126-950-11	ELECT	330MF	20%	35V		
R2902	1-249-417-11	CARBON	1K	5%	1/4W	C1527	1-136-165-00	FILM	0.1MF	5%	50V		
R2903	1-249-431-11	CARBON	15K	5%	1/4W	C1528	1-126-953-11	ELECT	2200MF	20%	35V		
R2904	1-249-431-11	CARBON	15K	5%	1/4W	C1529	1-126-953-11	ELECT	2200MF	20%	35V		
R2905	1-247-843-11	CARBON	3.3K	5%	1/4W	<CONNECTOR>							
R2906	1-249-420-11	CARBON	1.8K	5%	1/4W								
R2907	1-249-417-11	CARBON	1K	5%	1/4W	CN1501*	1-564-508-11	PLUG, CONNECTOR 5P					
R5903	1-249-419-11	CARBON	1.5K	5%	1/4W	CN1502*	1-564-507-11	PLUG, CONNECTOR 4P					
R5904	1-249-419-11	CARBON	1.5K	5%	1/4W	CN1503*	1-564-506-11	PLUG, CONNECTOR 3P					
							CN1504	1-564-506-11	PLUG, CONNECTOR 3P				
R5905	1-249-404-00	CARBON	82	5%	1/4W	<DIODE>							
R5907	1-247-855-31	CARBON	10K	5%	1/4W	D1501	8-719-911-19	DIODE 1SS119-25					
R5908	1-247-855-31	CARBON	10K	5%	1/4W	D1502	8-719-110-72	DIODE RD30ESB2					
R5909	1-249-404-00	CARBON	82	5%	1/4W	D1503	8-719-110-72	DIODE RD30ESB2					
R5915	1-249-411-11	CARBON	330	5%	1/4W	<IC>							
R5916	1-249-411-11	CARBON	330	5%	1/4W								
		<SWITCH>											
S2900	1-571-532-21	SWITCH, TACTILE					IC1501	8-759-980-43	IC TDA2009A				
S2901	1-571-532-21	SWITCH, TACTILE											
S2902	1-571-532-21	SWITCH, TACTILE											
S2903	1-571-532-21	SWITCH, TACTILE											
S2904	1-571-532-21	SWITCH, TACTILE											



REF. NO.	PART NO.	DESCRIPTION	REMARK			
		<IC LINK>				
PS1501	1-532-984-11	LINK, IC 2A/90V				
		<TRANSISTOR>				
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1504	8-729-202-67	TRANSISTOR 2SK246-GR3				
		<RESISTOR>				
R1501	1-249-385-11	CARBON	2.2	5%	1/4W	
R1502	1-249-385-11	CARBON	2.2	5%	1/4W	
R1503	1-220-958-81	METAL	1K	5%	1/2W	
R1504	1-220-961-81	METAL	2.2K	5%	1/2W	
R1505	1-249-400-11	CARBON	39	5%	1/4W	
R1506	1-249-400-11	CARBON	39	5%	1/4W	
R1512	1-247-855-31	CARBON	10K	5%	1/4W	
R1516	1-247-855-31	CARBON	10K	5%	1/4W	
R1517	1-247-807-31	CARBON	100	5%	1/4W	
R1518	1-247-825-31	CARBON	560	5%	1/4W	
R1521	1-249-432-11	CARBON	18K	5%	1/4W	
R1522	1-247-847-31	CARBON	4.7K	5%	1/4W	
R1523	1-220-961-81	METAL	2.2K	5%	1/2W	
R1524	1-249-438-11	CARBON	56K	5%	1/4W	
R1525	1-247-823-31	CARBON	470	5%	1/4W	
R1526	1-220-959-81	METAL	1.5K	5%	1/2W	
R1528	1-220-959-81	METAL	1.5K	5%	1/2W	
R1534	1-216-388-11	METAL OXIDE	0.82	5%	3W	F

* A-1380-592-A K1 BOARD, COMPLETE

<CONNECTOR>

CN3251* 1-564-506-11 PLUG, CONNECTOR 3P

<JACK>

J3251 1-536-707-21 TERMINAL, PUSH (2P)

REF. NO.	PART NO.	DESCRIPTION	REMARK			
	* A-1342-421-A	VM BOARD, COMPLETE *****				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C1722	1-102-115-00	CERAMIC	560PF	10%	50V	
C1724	1-101-880-00	CERAMIC	47PF	5%	50V	
C1751	1-136-153-00	FILM	0.01MF	5%	50V	
C1761	1-161-830-00	CERAMIC	0.0047MF	99%	500V	
C1763	1-107-638-11	ELECT	33MF	20%	160V	
C1764	1-125-804-51	ELECT	100MF	20%	16V	
C1768	1-107-368-11	MYLAR	0.047MF	99%	200V	
C1769	1-107-667-11	ELECT	2.2MF	20%	160V	
C1770	1-104-999-11	MYLAR	0.1MF	10%	200V	
C1771	1-125-797-51	ELECT	10MF	20%	50V	
C1772	1-125-804-51	ELECT	100MF	20%	16V	
C1773	1-107-368-11	MYLAR	0.047MF	99%	200V	
C1775	1-125-804-51	ELECT	100MF	20%	16V	
C1776	1-125-797-51	ELECT	10MF	20%	50V	
C1778	1-130-471-51	MYLAR	0.001MF	5%	50V	
C1779	1-130-471-51	MYLAR	0.001MF	5%	50V	
C1780	1-125-797-51	ELECT	10MF	20%	50V	
		<CONNECTOR>				
CN1701	1-564-511-11	PLUG, CONNECTOR 8P				
		<DIODE>				
D1761	8-719-911-19	DIODE 1SS119-25				
D1763	8-719-911-19	DIODE 1SS119-25				
D1764	8-719-911-19	DIODE 1SS119-25				
D1767	8-719-110-88	DIODE RD39ESB2				
D1768	8-719-110-88	DIODE RD39ESB2				
		<COIL>				
L1721	1-414-192-31	INDUCTOR	180UH			
L1722	1-414-192-31	INDUCTOR	180UH			
L1723	1-414-182-11	INDUCTOR	6.8UH			
L1761	1-410-478-11	INDUCTOR	47UH			
L1762	1-408-610-31	INDUCTOR	39UH			
		<TRANSISTOR>				
Q1722	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1723	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1756	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1761	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1762	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1763	8-729-017-05	TRANSISTOR 2SA1837				
Q1764	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1765	8-729-017-06	TRANSISTOR 2SC4793				
Q1766	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1767	8-729-142-86	TRANSISTOR 2SC3733				
Q1777	8-729-326-11	TRANSISTOR 2SC2611				

The components identified by shading
and mark $\triangle$ are critical for safety.
Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION				REMARK
<RESISTOR>						
R1721	1-247-825-31	CARBON	560	5%	1/4W	
R1722	1-249-411-11	CARBON	330	5%	1/4W	
R1723	1-249-407-11	CARBON	150	5%	1/4W	
R1724	1-249-409-11	CARBON	220	5%	1/4W	
R1725	1-249-412-11	CARBON	390	5%	1/4W	
R1727	1-220-963-81	METAL	3.3K	5%	1/2W	
R1728	1-247-855-31	CARBON	10K	5%	1/4W	
R1732	1-125-797-51	ELECT	10MF	20%	50V	
R1736	1-220-959-81	METAL	1.5K	5%	1/2W	
R1753	1-220-963-81	METAL	3.3K	5%	1/2W	
R1762	1-249-409-11	CARBON	220	5%	1/4W	
R1764	1-247-734-11	CARBON	39	5%	1/2W F	
R1765	1-249-414-11	CARBON	560	5%	1/4W F	
R1766	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1768	1-220-961-81	METAL	2.2K	5%	1/2W	
R1769	1-249-385-11	CARBON	2.2	5%	1/4W F	
R1770	1-249-435-11	CARBON	33K	5%	1/4W	
R1772	1-249-432-11	CARBON	18K	5%	1/4W	
R1774	1-215-912-11	METAL OXIDE	150	5%	3W F	
R1775	1-249-417-11	CARBON	1K	5%	1/4W F	
R1776	1-249-432-11	CARBON	18K	5%	1/4W	
R1777	1-249-438-11	CARBON	56K	5%	1/4W	
R1778	1-249-430-11	CARBON	12K	5%	1/4W	
R1779	1-247-825-31	CARBON	560	5%	1/4W	
R1780	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1781	1-249-410-11	CARBON	270	5%	1/4W	
R1782	1-249-385-11	CARBON	2.2	5%	1/4W F	
R1784	1-247-807-31	CARBON	100	5%	1/4W	
R1785	1-249-400-11	CARBON	39	5%	1/4W F	
R1786	1-249-435-11	CARBON	33K	5%	1/4W	
R1787	1-247-855-31	CARBON	10K	5%	1/4W	
R1788	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1789	1-247-823-31	CARBON	470	5%	1/4W	
R1790	1-216-451-11	METAL OXIDE	120	5%	2W F	
R1791	1-247-823-31	CARBON	470	5%	1/4W	
R1812	1-247-847-31	CARBON	4.7K	5%	1/4W	
R1851	1-249-393-11	CARBON	10	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS *****			
$\triangle$ 1-403-619-11	COIL, DEMAGNETIZATION		
1-452-032-00	MAGNET, DISC		
1-452-762-31	NECK ASSEMBLY NA294		
1-503-902-11	SPEAKER		
1-505-489-11	SPEAKER (5CM)		
$\triangle$ 1-782-452-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V		
1-900-224-27	LEAD ASSY, SPEAKER		
$\triangle$ 1-900-700-16	LEAD ASSY, FOCUS		
8-451-404-41	DEFLECTION YOKE (Y25GXAS)		
$\triangle$ 8-733-244-05	PICTURE TUBE (M60KWL70X)		

ACCESSORIES AND PACKING MATERIALS *****			
3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)		
3-864-430-11	MANUAL, INSTRUCTION		
* 4-065-587-01	INDIVIDUAL CARTON		
* 4-065-588-01	CUSHION (UPPER) (ASSY)		
* 4-065-589-01	CUSHION (LOWER) (ASSY)		
* 4-065-594-01	BAG, PROTECTION		
4-392-003-31	BAND, HOLD		
4-392-004-21	CLIP		

REMOTE COMMANDER *****			
1-475-800-11	REMOTE COMMANDER (RM-883)		

